Sept. 22, 1936. H. E. MILLER 2,054,988

GUY GUARD

Filed July 13, 1933

Fig. 1.

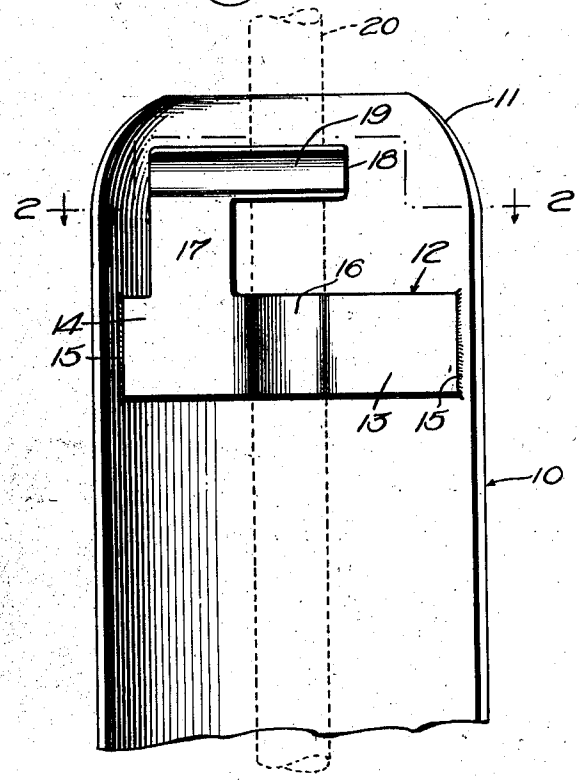


Fig. 2.

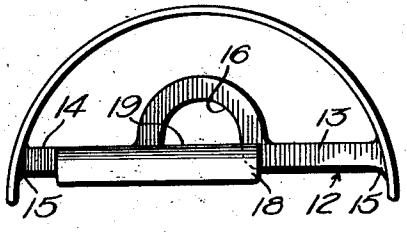


Fig. 4.

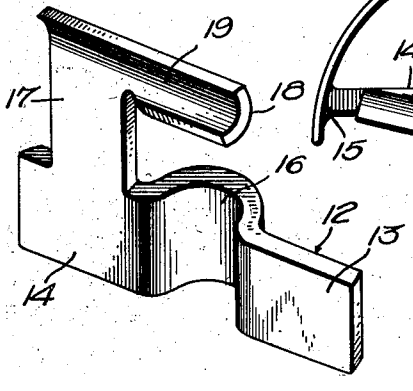
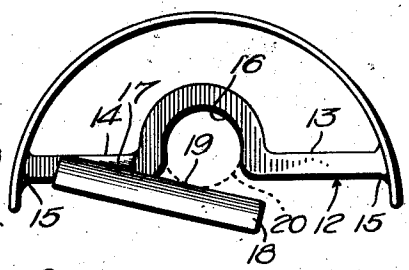


Fig. 3.



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Patented Sept. 22, 1936 2,054,988

UNITED STATES PATENT OFFICE

2,054,988

GUY GUARD

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Application July 13, 1933, Serial No. 680,306

15 Claims. (Cl. 189—31.5)

This invention relates to guy guards, and more particularly to an upper end attaching means for guy guards which may be used with numerous guy guard structures including the structures disclosed in my copending application Serial No. 504,920, filed December 26, 1930, and my prior Patent No. 1,902,414, granted March 21, 1933.

Numerous improvements in guy guard structures have been developed in recent years to simplify the attachment of guards to guy wires and to generally improve the guy guard structures. Most of such improvements have been particularly directed toward the lower ends of the guy guards to provide means for attaching the guards to the guy clamp or anchor rod, and such devices have been used with a variety of more or less satisfactory upper end attaching means.

An important object of the present invention is to provide novel means connected within the upper end of a guy guard to facilitate the attachment of the guard to the guy wire.

A further object is to provide a device of the character referred to wherein no separate attaching means is required, the entire device being self contained and permanently connected to the guard.

A further object is to provide an integral attaching member for the upper end of guy guards adapted to be permanently connected thereto and to resiliently engage the guy to prevent any play between the guy and the attaching device regardless of the means employed for securing the lower end of the guard to the guy or associated elements.

A further object is to provide a device of the character referred to which may be employed with apparatus of various cross-sectional shapes and which has the particular advantage of being simple and rugged in construction and which provides the additional advantage of laterally reinforcing the guard.

A further object is to provide an upper end attaching means for guy guards which readily may be placed in operative position by the simple expedient of properly tilting the guard with respect to the guy to permit the latter to move into operative position with respect to the attaching means, after which the guard may be swung into operative position with respect to the guy to be secured at its lower end to the guy or associated parts.

Other objects and advantages of the invention will become apparent during the course of the following description.

In the drawing I have shown one embodiment of the invention. In this showing:

Figure 1 is a fragmentary inside elevation of the upper end portion of a guard of the half-round type showing the invention attached to the guard,

Figure 2 is a section on line 2—2 of Figure 1 showing the parts in normal position,

Figure 3 is a similar view showing the position of the parts when the guy wire is arranged in the attaching means, and,

Figure 4 is an enlarged detail perspective view of the attaching means.

Referring to Figure 1, the numeral 10 designates the body portion of a guard, which may be of the half-round type or which may be substantially cylindrical in cross-section as shown in my pending application and prior patent referred to above. The upper end portion of the guard is preferably turned inwardly at its upper end as at 11 to eliminate so far as possible any projecting edges which might cause injury in handling the device, and to minimize damage to the guard in the handling thereof.

The guard is provided at its lower end with any suitable means for attaching it to the guy wire or to any of the parts associated therewith such as the guy clamp or anchor rod. In my prior patent and pending application referred to above, one of the bolts of the guy clamp is utilized for securing the lower end of the guard in position, but it will be apparent that the present invention is not limited to use with any particular type of lower end attaching means.

The device forming the subject matter of the present invention is shown in detail in Figure 4 of the drawing. The device is formed of suitable flat metal preferably of a thickness substantially greater than the thickness of the metal of the guard 10. It also will be noted that the attaching device is integral, being stamped from a single piece of flat material.

Referring to the drawing, the numeral 12 designates the body portion of the device which has alined end portions 13 and 14 preferably welded at their extremities to the guard 10 as at 15. Centrally of its length, the body 12 of the device is offset to provide a substantially semi-circular recess 16 to receive the guy wire in a manner to be described.

An integral shank 17 projects upwardly from the end 14 of the body 12 and the shank 17 is provided at its upper end with an integral lateral projecting portion 18. The upper extremity of the device including the projection 18 and the

upper end of the shank 17 is curved in cross-section as at 19 to present a convex face to the guy wire within the recess 16. The guy wire has been shown in dotted lines in Figures 1 and 3 and is designated by the numeral 20.

The operation of the device is as follows:

The attaching device is arranged in position within the guard whereupon the ends of the body portion 12 are welded to the guard 10, as indicated by the numerals 15. This operation rigidly and permanently secures the device in position within the guard, and the body of the device reinforces the guard to prevent distortion thereof. It will be noted that all portions of the device are arranged wholly within the guard even when the device is employed with a guard of the half-round type. As previously stated, the device is equally applicable to substantially cylindrical guards such as those shown in my copending application and prior patent previously referred to.

When it is desired to attach a guard to a guy wire, the guard is placed in position adjacent the wire with the lower end of the guard tilted away from the wire at a slight angle. The guard is then maneuvered with respect to the wire to place the wire beyond the extremity of the projection member 18, whereupon the guard is moved inwardly toward the wire and then laterally until the wire is arranged behind the projection 18, substantially in the plane of the recess 16. The lower end of the guard is then swung inwardly toward the wire, and as such operation takes place, the wire engages against the section 18 to flex it outwardly to the position indicated in Figure 3. This position of the parts is reached when the guard is in parallel relation to the guy wire. When such position of the guard is reached, the lower end is attached to the guy wire or to any of the elements associated therewith, such as the guy clamp or anchor rod.

When the device is in operative position, it will be apparent that the projection 18 exerts a constant resilient pressure against the guy wire 20 to retain it within the recess 16, and such resilient pressure prevents relative movement between the guy wire and attaching device, thus preventing the guard from rattling and also preventing the wearing of the guy wire which would occur if relative movement were permitted between the parts.

The device is arranged wholly within the guy guard thus eliminating projecting parts which might be subject to damage in handling and which might inflict injuries on operators working with the device. The device is simple in construction and is readily stamped from flat material and acts as a brace across the guy guard to prevent distortion thereof. It also will be apparent that the attaching means requires no tools in connecting it to the guy wire, it being necessary merely to properly maneuver the guy guard to move the guy wire in proper position with respect to the recess 16 and projection 18.

It is to be understood that the form of the invention herewith shown and described is to be taken as a preferred example of the same and that various changes in the shape, size and arrangement of parts may be resorted to without departing from the spirit of the invention or the scope of the subjoined claims.

I claim:

1. A guy guard comprising a body, and a guy engaging member arranged wholly within said body adjacent the upper end thereof, said engaging member comprising integral portions engageable against opposite sides of the guy wire at points spaced therealong, one of said portions being connected to said body and the other portion being connected solely to said last mentioned portion.

2. A guy guard comprising a body, and a guy engaging member arranged wholly within said body adjacent the upper end thereof, said engaging member comprising integral substantially parallel portions and an integral shank forming the sole connection therebetween, said parallel portions being engageable against opposite sides of a guy wire at points spaced therealong, said engaging member being connected to said guard body solely through one of said parallel portions.

3. A guy guard comprising a body, and a guy engaging member arranged wholly within said body adjacent the upper end thereof, said engaging member comprising integral substantially parallel portions and an integral shank forming the sole connection therebetween, said parallel portions being engageable against opposite sides of a guy wire at points spaced therealong, one of said parallel portions being provided with a laterally offset recess to receive the guy wire, said engaging member being connected to said guard body solely through one of said parallel portions.

4. A guy guard comprising a body, and a guy engaging member arranged within said body adjacent the upper end thereof, said engaging member comprising integral substantially parallel portions and an integral shank connected therebetween, said parallel portions being engageable against opposite sides of a guy wire at points spaced therealong, one of said parallel portions being curved to present a convex face engageable with the guy wire.

5. A guy guard comprising a body, and a guy engaging member arranged within said body adjacent the upper end thereof, said engaging member comprising integral substantially parallel portions and an integral shank connected therebetween, said parallel portions being engageable against opposite sides of a guy wire at points spaced therealong, one of said parallel portions being curved to present a convex face engageable with the guy wire, the other of said parallel portions being provided with a laterally offset recess to receive the guy wire.

6. A guy guard comprising a body, and a guy engaging member arranged within said body adjacent the upper end thereof, said engaging member comprising a body portion formed from flat material extending transversely of said body and secured at its ends thereto, and an element spaced from the body portion of said engaging member and resiliently connected thereto.

7. A guy guard comprising a body, and a guy engaging member arranged within said body adjacent the upper end thereof, said engaging member comprising a body portion arranged within the body of the guy guard transversely thereof and fixed at its ends thereto, a shank formed integral with the body portion of said engaging member parallel to and laterally offset from the axis of the body of the guy guard, and an integral element carried by said shank in spaced relation to the body portion of said engaging member, said element and the body portion of said engaging member being engageable against opposite sides of the guy wire.

8. A guy guard comprising a body, and a guy

engaging member arranged within said body adjacent the upper end thereof, said engaging member comprising a body portion arranged within the body of the guy guard transversely thereof and fixed at its ends thereto, a shank formed integral with the body portion of said engaging member parallel to and laterally offset from the axis of the body of the guy guard, and an integral element carried by said shank in spaced relation to the body portion of said engaging member, said element and the body portion of said engaging member being engageable against opposite sides of the guy wire, said element being curved to present a convex face in contact with the guy wire.

9. A guy guard comprising a body, and a guy engaging member arranged within said body adjacent the upper end thereof, said engaging member comprising a body portion arranged within the body of the guy guard transversely thereof and fixed at its ends thereto, a shank formed integral with the body portion of said engaging member parallel to and laterally offset from the axis of the body of the guy guard, and an integral element carried by said shank in spaced relation to the body portion of said engaging member, said element and the body portion of said engaging member being engageable against opposite sides of the guy wire, the body portion of said engaging member being provided with a laterally offset recess to receive the guy wire.

10. A guy guard comprising a body, and a guy engaging member arranged within said body adjacent the upper end thereof, said engaging member comprising a body portion arranged within the body of the guy guard transversely thereof and fixed at its ends thereto, a shank formed integral with the body portion of said engaging member parallel to and laterally offset from the axis of the body of the guy guard, and an integral element carried by said shank in spaced relation to the body portion of said engaging member, said element and the body portion of said engaging member being engageable against opposite sides of the guy wire, the body portion of said engaging member being provided with a laterally offset recess to receive the guy wire, said element being curved to present a convex face in contact with the guy wire.

11. A guy wire engaging member for guy guards formed of flat material and comprising a body portion, an integral shank carried by the body portion adjacent one end thereof and projecting upwardly therefrom, and an integral wire engaging element carried by the upper end of said shank and projecting therefrom toward the other end of said body portion, said element being curved to present a convex face at the side thereof which engages the guy wire.

12. A guy wire engaging member for guy guards formed of flat material and comprising a body portion, an integral shank carried by the body portion adjacent one end thereof and projecting upwardly therefrom, and an integral wire engaging element carried by the upper end of said shank and projecting therefrom toward the other end of said body portion, said element being curved to present a convex face at the side thereof which engages the guy wire, said body portion being provided substantially centrally of its length with an offset recess to receive the guy wire.

13. A guy wire engaging member for guy guards comprising a body portion elongated transversely with respect to the guy guard to which it is to be attached and adapted to lie in a plane parallel to the axis thereof, an integral shank carried by the body portion adjacent one end thereof and to one side of the axis of the guy guard, said shank projecting upwardly from and lying in the plane of said body portion, and an integral wire engaging element carried by the upper end of said shank parallel to and projecting toward the other end of said body portion.

14. A guy wire engaging member for guy guards formed of flat material and comprising a body portion elongated transversely with respect to the guy guard to which it is to be attached and adapted to lie in a plane parallel to the axis thereof, an integral shank carried by said body portion to one side of the axis of said guy guard and projecting upwardly from said body portion, and an integral wire engaging element carried by the upper end of said shank and projecting therefrom parallel to said body portion, said element and the central portion of said body portion being laterally offset with respect to each other and engageable against opposite sides of a guy wire, said body portion having parallel end edges engageable against the interior of the guy guard to be secured thereto.

15. A guy wire engaging member for guy guards formed of flat material and comprising a body portion elongated transversely with respect to the guy guard to which it is to be attached and adapted to lie in a plane parallel to the axis thereof, an integral shank carried by said body portion to one side of the axis of said guy guard and projecting upwardly from said body portion, and an integral wire engaging element carried by the upper end of said shank and projecting therefrom parallel to said body portion, said body portion having a recess substantially centrally of its length to receive a guy wire and having parallel end edges engageable against the interior of the guy guard to be secured thereto.

HERBERT E. MILLER.