Dec. 2, 1941. F. N. BIERCE 2,264,430

GUY PROTECTOR

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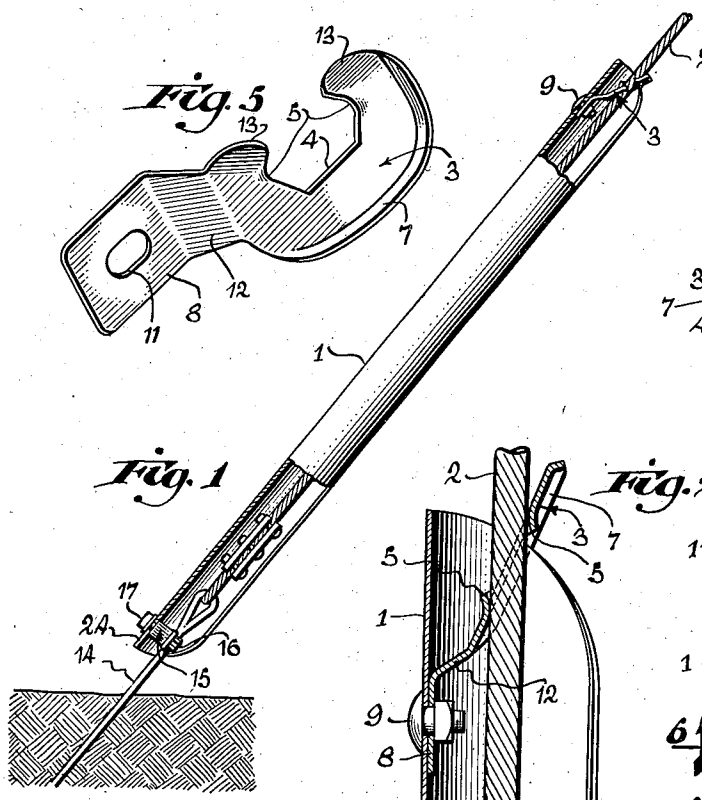


Fig. 1

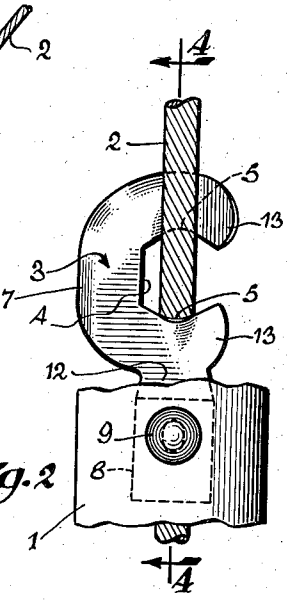


Fig. 2

Fig. 4

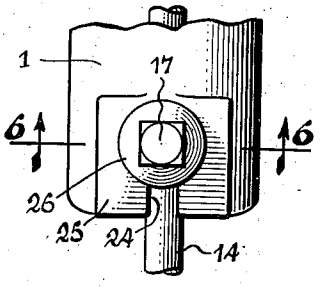


Fig. 3

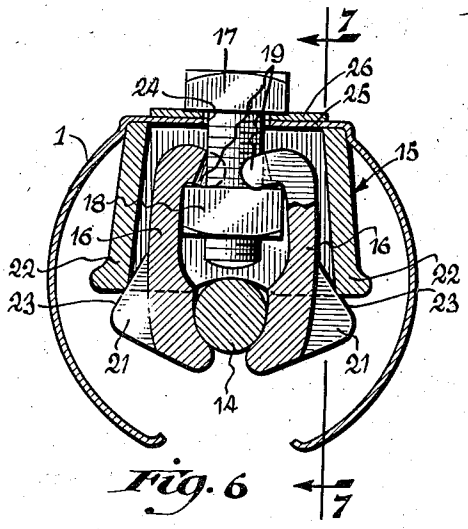


Fig. 6

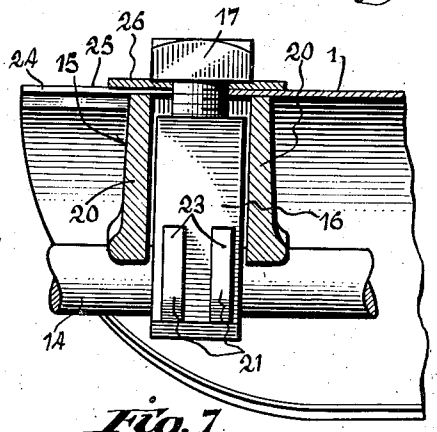


Fig. 7

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2,264,430

GUY PROTECTOR

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4 Claims. (Cl. 189—31.5)

This invention relates to protectors for guy lines, and primarily for guy lines anchored in the ground for sustaining poles along highways, principally as a public safety measure. The protector in the form of a sheet metal semi-tubular casing covers the guy a determined distance from the ground, and the improvement is particularly directed to fasteners for securing the protector at its opposite ends to the guy line.

An object of the invention is to provide a clip fastener rigidly fixed to the upper end of the protector, enabling it to be conveniently and quickly hooked about the guy line to secure and maintain a casing centrally spaced about the guy, and to permit a lineman, while standing on the ground, to make an installation connection with the guy at a point above his normal reach.

Another object of the invention is to provide an improved clamp for securing the lower end of a protector casing to the anchoring rod of a guy, and in which the clamp is rigidly fixed to the guy and protector casing by a single bolt accessible from the exterior of the casing.

Another object of the invention is to provide a clamp for securing a protector casing to a guy, the clamp as a unit separable from the casing for convenient preliminary attachment to the guy, and then slipped into engagement with an end of the casing, and the connected parts rigidly united by a single bolt carried by the clamp and accessible from the exterior side of the casing.

Further objects and advantages of the invention will be more fully apparent from a description of the accompanying drawing, in which:

Figure 1 is a general view of the guy shield secured in place on a guy wire, the shield partially in section to illustrate the fastening devices at the respective opposite ends.

Figure 2 is a fragmentary view of the shield, illustrating the fastener clip preferably for the upper end thereof as viewed from the upper or exposed side of the shield.

Figure 3 is a fragmentary view similar to Figure 2, showing the lower end of the shield.

Figure 4 is a sectional view taken on line 4—4, Figure 2.

Figure 5 is a perspective view of the fastener clip, preferably for the upper end of the shield.

Figure 6 is a sectional view taken on line 6—6, Figure 3.

Figure 7 is a sectional view taken on line 7—7, Figure 6.

Referring specifically to the drawing, the shield 1 is of comparatively closed channel or slightly open cylindrical form, following a conventional practice, to provide a longitudinal opening for convenient application over an installed guy wire or cable 2 and substantially enclose and guard the same. The opposite longitudinal ends of the shield are rounded or curved, and the shield is of suitable length and cross dimension to amply cover the guy, giving sufficient protection as may be necessary to meet the safety regulations. The present trend is to have the shield approximately completely envelop the guy except for a full length longitudinal opening to enable the shield to be applied over an erected guy. This does not provide accessibility of the fasteners for the shield from an underside thereof.

The upper end of the shield is preferably provided with a clip 3 of open hook shape, secured to the shield to clasp opposite sides of the guy to hold the shield against lateral displacement, and properly space it from the guy. The clip is formed or stamped from sheet or plate metal of a design or outline forming a body portion in the form approximately of a C for clasping about the guy wire or cable. The opening 4 of the body is configurated to provide opposing V-notches 5, 5, to engage about opposite sides of the cable or guy line to which the shield is to be applied.

The edges of the jaws are preferably rounded or curved to prevent biting or injury to the protective coating of the guy line. The clip body is stiffened or reinforced by a web or flange 7, extending about the forward and back edge thereof opposite the throat opening.

The clip includes a shank extension 8 offset from the body for attachment to the shield, preferably by means of the bolt 9. For this purpose, the shank has an elongated aperture 11 in registry with a similar aperture in the shield. The bolt 9 passing therethrough may be provided with a square or oblong shank similar to a carriage bolt fitted snugly within the aperture to lock it against rotation when the nut is tightened.

The body and shank are integrally connected in offset relation by an angular neck or stem 12 of reduced width dimension. The neck permits sufficient yield to effect a binding engagement of the body about the guy or cable against longitudinal slip. In applying the shield, the clip through the throat opening 4 is slipped over the guy line to insert the same between opposing jaws and at relative opposite sides thereof. This is easily accomplished by holding the shield at a slightly inclined position from the guy line, and permits the clip to be conveniently threaded upon the guy line.

The body of the clip at the throat opening is bent in alternate directions angularly to form ears or tabs 13, 13, one for each of the jaws, to aid in confining the clip upon the cable. When bringing the shield approximately into parallelism with the guy line, the jaws of the clip establish a firm gripping engagement therewith, preventing longitudinal displacement or movement of the shield upon the guy line and effecting an

appropriate spacing of the shield from the line.

The lower end of the shield is securely fastened to the guy line as an anchor rod 14 by a clamping fixture, generally indicated at 15. The fixture comprises a casing, preferably of rectangular configuration, with an open top and bottom, housing and confining a pair of corresponding clamping jaws 16, 16, opposingly arranged and simultaneously actuated by a clamping bolt 17. The lower ends of the jaws extend beyond the casing to clampingly engage about relative opposite sides of the rod disposed therebetween. The shanks of the jaws within the casing have their inner ends angled for anchorage upon a nut 18 threaded upon the clamping bolt 17 and straddling the bolt. Each shank therefor has a laterally extended hook 19 for anchoring on the nut, the hook portions centrally recessed or notched to provide clearance for and straddle the bolt.

The width dimension of the casing is appropriate to accommodate the nut and to telescopically receive and confine the shank extensions of the clamping jaws, the parts fitting between the side walls 20, 20, with sufficient looseness to prevent binding. Each respective clamping jaw at its lower end is provided with a pair of inclined or tapering fins 21, 21, disposed in parallelism and adapted to engage against the opposite end walls 22, 22, of the housing 15. The inclined upper faces 23 of the respective webs or fins act upon the lower edges of the opposing end walls with a camming or wedging action, forcing the jaws about the anchor rod to firmly clamp the rod 14.

The internal clamping faces of the jaws are of arcuate form, and the opposite lower edges of the side walls of the casing are slightly centrally recessed to accommodate the anchor rod. In drawing up the clamping bolt, the jaws are drawn toward each other and inwardly of the casing as guided by the angular cam faces of the fins. The rod is therefore clamped between clamping jaws and against the lower edge of the casing, the casing forming a spacer to hold the shield properly spaced from the guy.

The clamping fixture 15 is secured at the lower end of the shield by the clamping bolt 17 engaged through an open slot 24, extending longitudinally inwardly from the lower edge of the shield. The shield is stamped to provide a squared flat section 25 to overlie the clamping fixture, and is of a width permitting it to be slipped in with the clamp in place on the guy. The flat section affords a guide and a bearing surface for the clamping fixture and extends inwardly of the shield from the lower edge thereof, terminating at a point inwardly to provide a stop. The edges of the flat section 25 guide the clamping fixture and hold it squarely to the shield, preventing any turning when the clamp bolt 17 is tightened, thus facilitating the installation. The shield is frictionally engaged between the clamping fixture and a washer 26 disposed under the head of the clamping bolt.

The shield is applied to the guy wire with the upper clip 3 bolted in place with the guy threaded through the clip. The clamp is separated from the shield to initially engage the jaws about the anchor rod, whereupon the clamp is slipped into engagement with the shield, and the bolt tightened to rigidly bind the parts together and complete the installation. The clamping fixture securely grips the rod, properly spacing the shield from the rod, and secures the shield or casing against any lateral or longitudinal displacement.

Having described my invention, I claim:

1. A clamp for securing a sheet metal shield to a guy, comprising: a shell form of casing having an opening therethrough providing a stock for a pair of jaws and a spacer for intervening the shield and guy, a screw bolt including a nut thereon extending into one end of the stock and adapted for traversing an aperture in the shield to sustain the bolt upon the shield and render it accessible from an exterior side of the shield, a pair of jaws extending into the opposite end of the stock for opposingly gripping the guy therebetween, each jaw having a claw anchorage on the bolt within the stock and arranged for a wedging engagement with an adjacent portion of the stock, whereby upon moving the nut upon the screw the jaws are drawn inwardly of the stock and forced laterally for compressively clamping the guy, and binding the shield and guy against the intervening stock.

2. A clamp for securing a sheet metal shield to a guy, comprising: a shell form of casing having an opening therethrough providing a stock for a pair of jaws and a spacer for intervening the shield and guy, a screw bolt including a nut thereon extending into one end of the stock and adapted for traversing a slot in one end of the shield to sustain the bolt upon the shield and render it accessible from an exterior side of the shield, a pair of jaws extending into the opposite end of the stock for opposingly gripping the guy therebetween, the jaws anchored on the bolt within the stock and arranged for a wedging engagement with an adjacent portion of the stock, whereby upon moving the nut upon the screw the jaws are drawn inwardly of the stock and forced laterally for compressively clamping the guy, and binding the shield and guy against the intervening stock.

3. A clamp for securing a sheet metal shield to a guy and relatively spacing the shield and guy, comprising: a casing of sleeve form providing a stock for a pair of jaws, a screw bolt extending centrally into the casing from one end thereof, and a pair of oppositely disposed jaws extending into the casing from an opposite end thereof and anchored to the bolt respectively at relative opposite sides of the stem thereof, the bolt operating to draw the jaws into the casing and the jaws engageable with the casing for compressing the same toward each other when drawn into the casing for clamping a rod engaged therebetween and extending across the end of the casing for binding the rod to the casing.

4. A clamp for securing a sheet metal shield to a guy and relatively spacing the shield and guy, comprising: a casing of sleeve form providing a stock for a pair of jaws, a screw bolt extending centrally into the casing from one end thereof, and a pair of oppositely disposed jaws extending into the casing from an opposite end thereof, each having its inner end of hook form to loosely and hingedly anchor the same to the bolt respectively and relatively at opposide sides of the stem, the bolt operating to draw the jaws into the casing and the jaws engageable with the casing for compressing the same toward each other when drawn into the casing for clamping a rod engaged therebetween and extending across the end of the casing for binding the rod to the casing.

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