Jan. 22, 1935. B. M. SMALLEY 1,988,667

GUARD FOR GUY WIRES AND THE LIKE

Filed July 13, 1931

Fig. 1

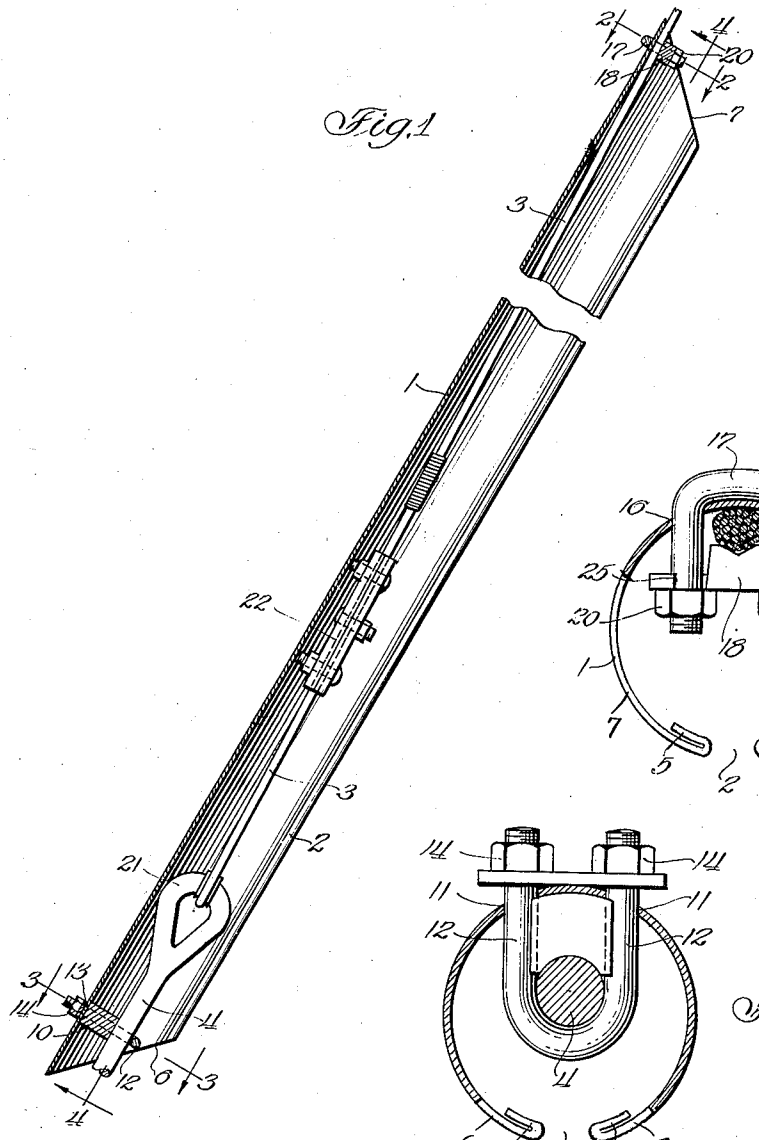
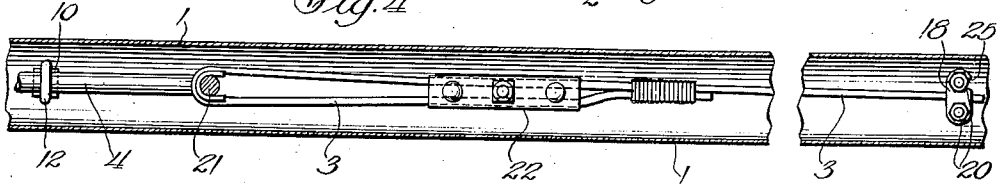


Fig. 2

Fig. 3

Fig. 4



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Patented Jan. 22, 1935 1,988,667

UNITED STATES PATENT OFFICE

1,988,667

GUARD FOR GUY WIRES AND THE LIKE

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Application July 13, 1931, Serial No. 550,314

6 Claims. (Cl. 189—31.5)

This invention relates to guards for guy wires and other similar rod-like objects which are difficult to see.

In the construction of overheard electrical distribution systems, telephone and telegraph lines, and the like, it is necessary to employ guy wires leading from the upper part of the pole to the ground at some distance from it, where the guy is attached to a suitable anchor which permits it to brace the pole. It frequently happens that such guys must be placed near sidewalks, or in other places where pedestrians are apt to run into and be injured by the wire if it is not protected. Guy wires of this type are relatively small, usually not more than one-half an inch in diameter, and after the wire has weathered for some time it becomes discolored and dark, and therefore it is seen with great difficulty.

It is old in the prior art to provide guards for guy wires, and the guard of the present invention is broadly an improvement upon these prior art devices, eliminating from them their most serious defects.

In certain of the prior art guards of which I am aware, a semi-cylindrical metallic plate is attached to the guy wire and guy rod to which it is attached, the guard being disposed with its open face downward. A guard of this kind aids materially in enabling the guy wire to be readily seen, however it is subject to the criticism that its edges are relatively sharp and a pedestrian running into the guard is apt to be injured by it.

The guard of my invention comprises a substantially cylindrical rigid member which is slotted longitudinally to permit it to be readily threaded over the guy wire. The edges of the slot are folded upon themselves and inwardly of the cylinder so that they present a smooth border to the narrow slot in the cylinder. Suitable attaching lugs or clamps are provided to securely attach the guard to the guy wire and to the anchor rod to which that wire is fastened, so that when installed the guard is as rigid as the guy wire itself, and is of sufficient size to be readily seen. There are no sharp or projecting corners or edges in that part of the guard with which a pedestrian would come in contact should he accidentally run into it, and therefore injury to the pedestrian is entirely eliminated.

Since the purpose of a guy wire guard is to render the guy wire visible, it is apparent that the greater the width of the guard, as viewed laterally, the greater will be the visibility. The amount of material in the guard should, of course, be kept down for reasons of economy. Therefore, it is essential that the material which is used should be utilized to the greatest advantage affording lateral visibility. It is, of course, also desirable that the guard shall be of such a construction as to facilitate the mounting or removal of the same from the guy wire. I provide a guard which has the lateral visibility of an all-around type of guard, while retaining the advantages of the half-around type of guard insofar as concerns the ease of mounting the same. Also, I provide a guard which, although mounted in the manner of a half-around type of guard, has the smoothness of edges of the all-around type, and this without increasing the amount of material as compared to the material in the all-around type of guard.

The guard of my invention is preferably composed of steel and is galvanized to protect that metal from rusting, and the result of the combination is a graceful and sightly guard which greatly enhances the appearance of the distribution system.

My invention will be best understood by reference to the accompanying drawing in which:

Figure 1 is an elevational cross-sectional view of the guard attached to a guy wire and rod;

Figure 2 is a cross-sectional view taken along the line 2—2 of Figure 1, looking in the direction of the arrows;

Figure 3 is a cross-sectional view taken along the line 3—3 of Figure 1, looking in the direction of the arrows, and with Figure 2 showing the details of the attaching arrangement; and

Figure 4 is a cross-sectional view taken along the line 4—4 of Figure 1, looking in the direction of the arrows.

Referring now to the drawing in more detail, it will be seen that the guard comprises a cylindrical member 1, whose length is many times its diameter. I have found that in most instances it is desirable to have the overall length of the guard approximately eight feet and its diameter approximately three inches. The guard may be conveniently made of sheet steel or other suitable metal, rolled to the required size and shape. The thickness of the stock used in the fabrication of the guard may, of course, vary, however I have found that No. 16 gauge rolled metal is satisfactory. This thickness of metal gives the required rigidity to the guard and, at the same time, does not make it unduly heavy and expensive.

Located in the lower surface of the guard is a longitudinal slot 2 of sufficient width to permit the entrance of the guy wire 3 into the guard. This construction permits the guard to be slipped on over the guy wire after the same has been

installed and obviates the necessity of threading the guard on the guy wire before the latter is attached to the anchor rod 4.

Preferably the width of the slot 2 is slightly less than the diameter of the guy wire 3, so that after the jaws of the cylinder have been spread to admit the guy wire, the cylinder will close back to its normal position and will practically encircle the guy wire. I have found that a slot of not more than one-half an inch width is very satisfactory. The edges of the member 1 adjacent the slot 2 are folded back upon themselves and internally of the cylinder 1, as shown at 5 in Figures 2 and 3, this arrangement making the edges of the slot smooth and thereby eliminating possibility of injury by coming in contact with those edges.

The lower end of the cylindrical guard is cut away at an angle, as shown at 6, and the edges of this cut away portion are not doubled back upon themselves. However, since this end of the guard practically engages the ground, there is no likelihood of a person being injured by these relatively sharp edges, even though they may collide with the guard.

Similarly, if desired, the upper end may be cut away at an angle, as shown at 7; however, this is not necessary and in many instances it may be advantageous to leave the upper end of the guard substantially square. With an eight foot guard, the upper end of it is disposed above the head of an average person and, should they come in contact with the guard, they will not be injured by a sharp edge at its upper end, and it is therefore unnecessary to fold back the edges of the metal at this point.

In order to provide for the attaching of the guard to the anchor rod 4 and the guy wire 3, I have provided a spacing block which is securely attached to the inside surface of the guard. The walls of the guard at the ends of this block are perforated, as at 11, to receive a U-bolt 12 which is disposed with its parallel sides embracing the opposite sides of the block 10. A yoke 13 is perforated to receive the projecting ends of the U-bolt, this yoke bearing against the outside surface of the guard where it is held by nuts 14 to securely attach the lower end of the guard to the anchor rod. Preferably, the engaging face 15 of the block 10 is made arcuate so it accurately conforms to the contour of the rod and, obviously, as the nuts 14 are tightened, the closed end of the U-bolt tightly grips the rod between itself and the block 10. The block 10 spaces the rod with respect to the walls of the guard so that it is located approximately centrally of the guard.

This arrangement securely builds the guard upon the guy rod and since that rod is invariably solid, the guard is solid and not subject to twisting or turning about its longitudinal axis, as are guards attached only to a stranded guy wire such as 3.

At the upper end of the guard I have provided perforations 16 in the walls of the cylinder through which a U-bolt 17 is projected with its open ends extending into the inside of the cylinder. A yoke 18 is perforated and threaded over the end of this U-bolt, this yoke containing a seating block 19 which is shaped to conform approximately to the contour of the guy wire. Nuts 20, threaded onto the ends of the U-bolts 17, serve to draw the yoke towards the walls of the cylinder and thereby grip the guy rod 3 tightly between the yoke and those walls. The guy wire 3 is thus located against one side of the cylindrical guard.

For convenience in installing, the yoke 18 may be provided with one circular opening 24 and with one hook-like opening 25, which embraces the two legs of the U-bolt 17. By this arrangement, when the nuts 20 are loosened, the yoke 18 may be swung around one leg of the U-bolt as an axis and out of the way of the open end of that bolt so that the guy wire may be placed therein without completely removing the nuts 20 and yoke 18 from the U-bolt.

The inside diameter of the guard is sufficient to permit it to be threaded over the eyelet 21 of the anchor rod and over the clamp 22 by which the guy wire 3 is secured. This clamp 22 may be any one of the usual type of clamps now employed for this purpose, and since it forms no essential part of the present invention, need not be explained in detail herein. Since the guard is substantially a cylinder the eyelet 21 and clamp 22 are fully concealed when disposed within it. This arrangement also prevents tampering with the clamp 22 since it is inaccessible when contained in the guard.

Preferably, the guard 1, spacing blocks, yokes and U-bolts are all galvanized or otherwise coated with a protective metal to prevent them from rusting. A coating of this type also adds to their appearance and makes them more readily visible so that the guard can be easily seen and avoided by pedestrians.

While I have chosen to show my invention by illustrating a preferred embodiment of it, I have done so by way of example only, as the specific arrangement shown may be modified greatly within the teachings of my invention.

What I consider new and desire to have protected by Letters Patent is pointed out in the appended claims.

What is claimed is:—

1. A guard for enclosing a guy rod and a guy wire clamped to said rod, comprising a tubular sheet metal member having inturned beaded edges defining a longitudinal slot therein of substantially the diameter of the guy wire extending substantially the entire length of said guard, the ends of said tubular member being cut off obliquely outwardly of said slot to provide extending portions overhanging the ends of said slot, and clamp means carried by said extending portions for clamping said guard to said rod and wire within the length of the guard, said obliquely cut end portions providing for access to said clamp means interiorly of said guard.

2. A guard for enclosing a guy wire having clamped engagement with the eye of a guy rod, comprising a sheet metal member shaped into the form of a tube and having its adjacent edges defining a longitudinal slot extending substantially the entire length of said guard, said slot being of a width substantially equal to the diameter of said guy wire, whereby said guard may be slipped over said wire above said guy rod and moved axially of said wire into position about the clamped engagement of said rod and wire, said guard tube having its end portions cut off obliquely outwardly of said slot to define extending portions projecting axially outwardly of said tube beyond the ends of said slot, and clamp means carried by said projecting portions and secured to said rod and wire within the length of said guard, the cut-away portions of said guard providing ready access to said clamping means interiorly of the periphery of said guard from the slot side of said guard.

3. A guard for enclosing a guy rod and a guy wire clamped to said guy rod, comprising a tubular sheet metal member having a longitudinal slot therein of substantially the diameter of the guy wire, the edges defining said slot being bent inwardly of the tubular surface of said member, one end of said tubular member being formed to define a widened slot extending outwardly of said first-named slot to provide an extending portion overhanging one end of said first-named slot, and clamp means carried by said extending portion of said member for clamping the end of said member to said wire within the length of said member, said clamping means being accessible interiorly of said guard through said widened slot.

4. A guard for enclosing a guy rod and a guy wire clamped to said rod, comprising a sheet metal member of generally cylindrical form and having a longitudinal slot therein of substantially the diameter of said wire, the edges of said member defining said slot being bent inwardly of said member away from the lateral exterior surface thereof, means for clamping one end of said member to said wire, and means for clamping the opposite end of said member to said guy rod.

5. A guard for enclosing a guy rod and a guy wire clamped to said rod, comprising a tubular sheet metal member having a longitudinally extending slot therein of substantially the diameter of said wire, one end of said member being cut outwardly away from said slot to provide a widened slot portion having an extending portion of said member overhanging the same, and means carried by said extending portion of said member for clamping said member to said wire, said clamping means being accessible interiorly of said member through the widened slot portion at the end of said longitudinally extending slot.

6. A guard for enclosing a guy rod and a guy wire clamped to said rod at the end thereof, comprising a tubular sheet metal member of an internal diameter greater than the diameter of said guy rod or said guy wire connection, said member having a longitudinal slot therein of substantially the diameter of said wire, said member being passed over said wire whereby said slot provides for lateral entry of said wire into the interior of said member, means for clamping the upper end of said member to said guy wire, and means carried at the lower end of said member for clamping said member to said guy rod below the connection between said guy rod and guy wire, said last named clamping means being accessible from the slotted side of said member.

BURTON M. SMALLEY.