March 26, 1935. C. A. VAN DE MARK 1,995,874

POLE REENFORCEMENT

Filed May 12, 1934

Fig. 1.

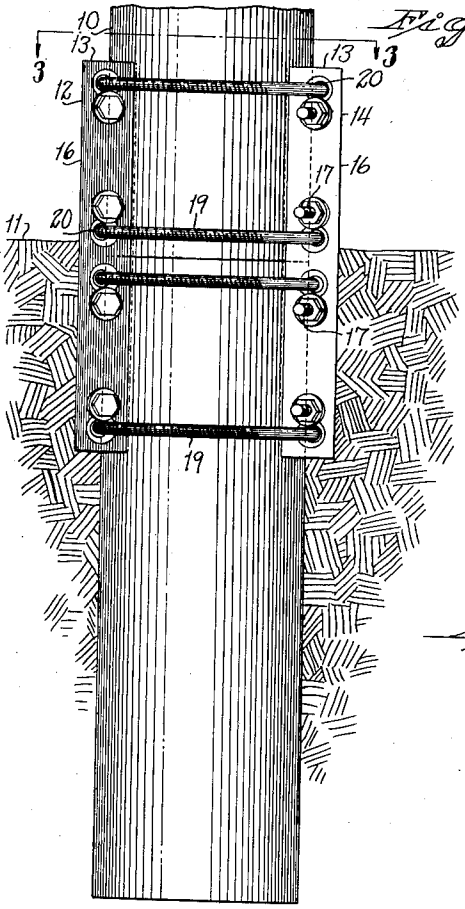


Fig. 3.

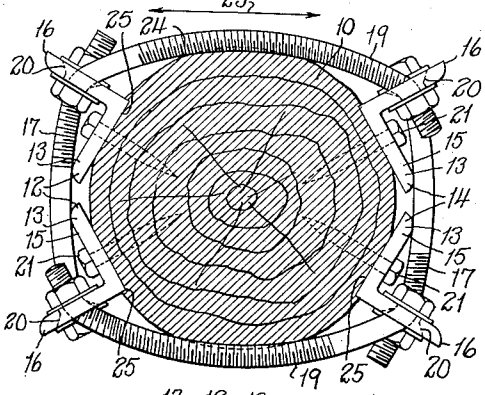


Fig. 2.

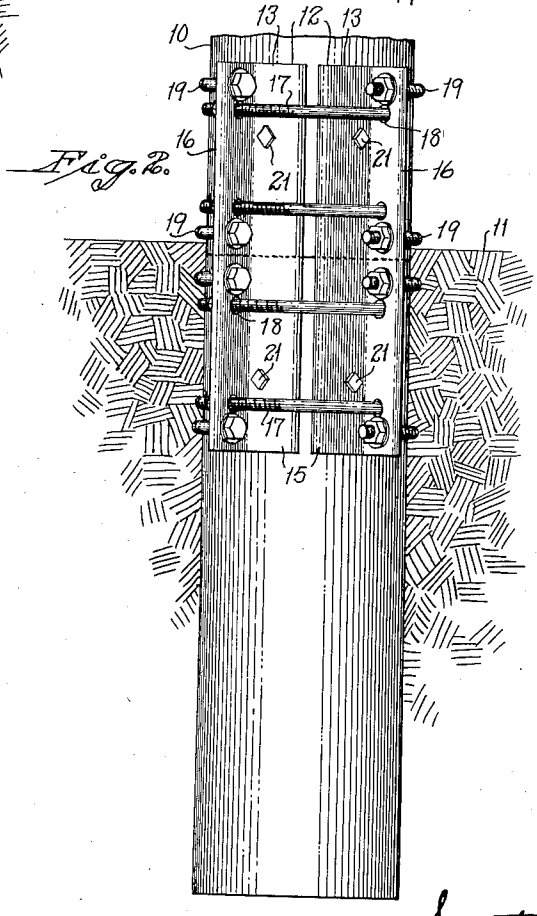
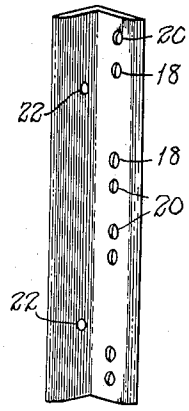


Fig. 4.



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POLE REENFORCEMENT

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4 Claims. (Cl. 20—99)

This invention relates to improvements in pole reenforcements.

One object of this invention is to provide an improved pole reenforcement which will be readily adjustable to accommodate poles of different diameters.

Another object of this invention is to provide an improved pole reenforcement which can be manufactured at minimum cost.

With the above and other objects in view, this invention includes all improvements over the prior art which are disclosed in this application.

In the accompanying drawing, in which one way of carrying out the invention is shown for illustrative purposes:

Fig. 1 is a front elevation of the lower portion of a pole, with the improved reenforcement applied thereto;

Fig. 2 is a side elevation at right angles to Fig. 1;

Fig. 3 is a sectional view on the line 3—3 of Fig. 1; and

Fig. 4 is a perspective view of one of the reenforcing elements or angle-bars.

In the description and claims, the various parts are identified by specific names for convenience, but they are intended to be as generic in their application as the prior art will permit.

Referring to the drawing, 10 is a pole, to which the improved reenforcement is to be applied to strengthen the pole in the region of the ground line 11 to overcome weakness in the pole due to a portion of the wood of the pole becoming decayed. The improved pole reenforcement includes a reenforcing member 12 consisting of a pair of reenforcing elements or angle-bars 13, located in opposed relationship to a second reenforcing member 14 consisting of a second pair of reenforcing elements or angle-bars 13. Each angle-bar 13 has a longitudinal pole-engaging flange 15, and a longitudinal bracing-flange 16 extending transversely outward from the pole-engaging flange. The bracing-flanges 16 of each pair of angle-bars extend from the most widely spaced-apart edges of the pole-engaging flanges 15.

Bolts 17 extend through holes 18 in, and interconnect and pull toward each other, the bracing-flanges 16 of each pair of angle-bars. Other bolts 19 extend through holes 20 in, and interconnect and pull toward each other, each bracing-flange 16 of one pair of angle-bars with a corresponding bracing-flange 16 of the other pair of angle-bars. Lag-bolts 21 are passed through the holes 22 in each pole-engaging flange 15 and are screwed into the upper and lower portions of the pole 10.

In Fig. 3, the double arrow 23 indicates the direction of a street adjacent the side of which the pole 10 is located. It will be noted that both pairs of angle-bars are so placed as to afford a minimum of projecting parts at the side 24 of the pole, which is adjacent the street indicated at 23, thus minimizing the tendency of vehicles to catch on parts of the pole reenforcement.

It will be observed that the angle-bars of each pair are adjustable toward and from one another, to place them at any desired distance apart, depending upon the diameter of the pole 10. It will also be noted that when applied in the manner illustrated in Fig. 3, the corner portion 25 of each pole-engaging flange 15 tends to become forced or pressed into the pole. It will also be noted that the bolts 17 in the construction illustrated in Fig. 3, rest upon the free ends of the flanges 15.

The bolts 19, when applied in the manner illustrated in Fig. 3, are in direct contact with the wood of the pole and tend somewhat to become pressed thereinto. If desired, of course, bearing-blocks may be interposed between the bolts 19 and the poles 10 to afford a larger bearing surface against the pole to minimize the tendency of the bolts 19 to sink into the pole.

In order to apply the pole reenforcement to a standing pole, a hole is dug around the pole sufficiently deep to accommodate the pole reenforcement, which latter is then applied about the pole and the bolts are tightened up to cause the angle-bars 13 to be firmly pressed into reenforcing engagement with the pole. The lag-screws are then applied and screwed firmly into the poles as previously described.

In such instances as the portion of the pole in the ground is too unsound to permit of its being utilized, the pole can be cut off at the ground line and the pole, with electric wires or the like remaining in place, can be swung to one side by means of a pole derrick, whereupon the old decayed pole butt in the ground can be pulled out.

A new pole butt is made of the proper size, and the improved pole reenforcement it attached in proper position thereon, whereupon the new pole butt is placed in the ground in proper position. The pole proper is then swung into place by means of the derrick to cause the lower end of the pole to move down within the projecting portion of the pole reenforcement, whereupon the bolts are tightened on the pole reenforcement and the lag-screws are screwed into place.

The invention may be carried out in other specific ways than that herein set forth without departing from the spirit and essential characteristics of the invention, and the present embodiment is therefore to be considered in all respects as illustrative and not restrictive, and all changes coming within the meaning and equivalency range of the appended claims are intended to be embraced therein.

I claim:

1. In combination with a pole: a plurality of reenforcing angle-bars spaced apart from each other and extending longitudinally of the pole; each angle-bar consisting of one longitudinal pole-engaging flange, and one longitudinal bracing-flange extending transversely from one longitudinal edge of a pole-engaging flange; and bolts connected to each bracing-flange and extending in opposite directions about the pole and pulling each bracing-flange in opposite directions transversely of the bracing-flanges.

2. In combination with a pole; a plurality of reenforcing angle-bars spaced apart from each other and extending longitudinally of the pole; each angle-bar being of substantially-uniform cross-section throughout its length except as to bolt-holes and consisting of one longitudinal pole-engaging flange, and one longitudinal bracing-flange extending transversely from one longitudinal edge of a pole-engaging flange; and bolts connected to each bracing-flange and extending in opposite directions about the pole and pulling each bracing-flange in opposite directions transversely of the bracing-flanges.

3. In combination with a pole: opposed, spaced-apart pairs of reenforcing angle-bars extending longitudinally of the pole; each angle-bar consisting of one longitudinal pole-engaging flange, and one longitudinal bracing-flange extending transversely from one longitudinal edge of a pole-engaging flange, the bracing-flanges of each pair of angle-bars extending from the most widely spaced-apart edges of the pole-engaging flanges of a pair of angle-bars; bolts interconnecting and pulling toward each other, the bracing-flanges of each pair of angle-bars; and other bolts interconnecting and pulling toward each other, each bracing-flange of one pair of angle-bars with a corresponding bracing-flange of the other pair of angle-bars.

4. In combination with a pole: opposed, spaced-apart pairs of reenforcing angle-bars extending longitudinally of the pole; each angle-bar being of substantially-uniform cross-section throughout its length except as to bolt-holes and consisting of one longitudinal pole-engaging flange, and one longitudinal bracing-flange extending transversely from one longitudinal edge of a pole-engaging flange, the bracing-flanges of each pair of angle-bars extending from the most widely spaced-apart edges of the pole-engaging flanges of a pair of angle-bars; bolts interconnecting and pulling toward each other, the bracing-flanges of each pair of angle-bars; and other bolts interconnecting and pulling toward each other, each bracing-flange of one pair of angle-bars with a corresponding bracing-flange of the other pair of angle-bars.

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