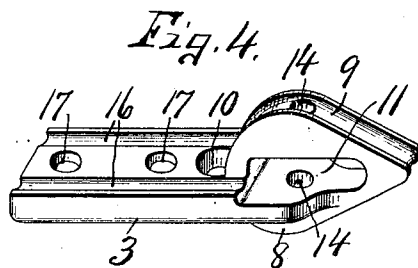
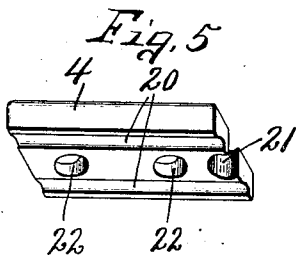
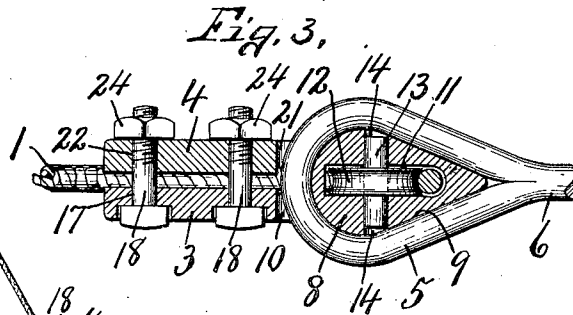
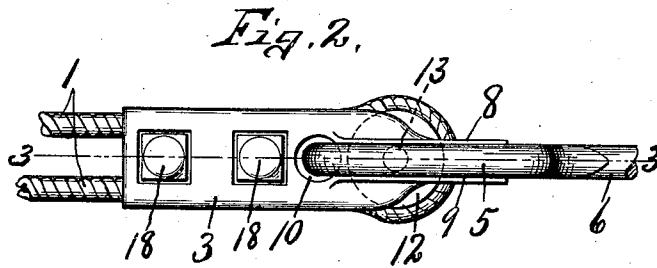
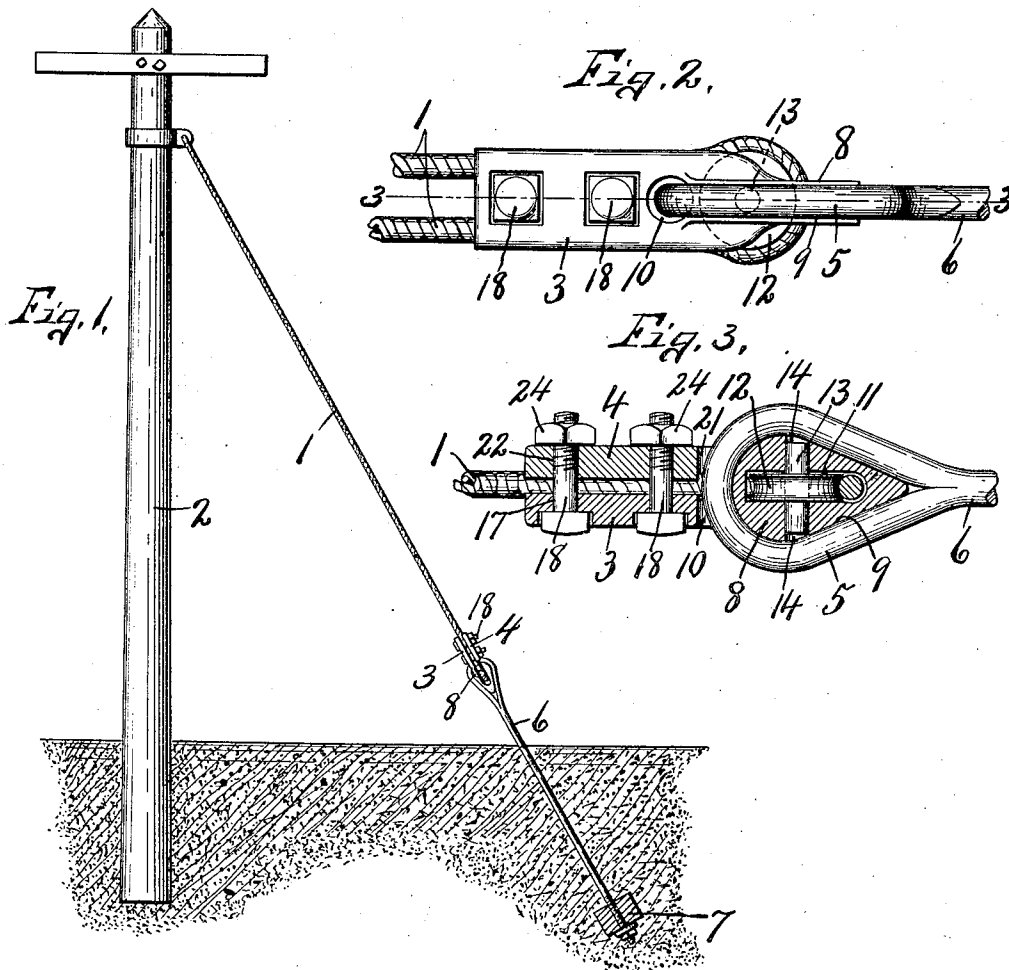


No. 849,100.

PATENTED APR. 2, 1907.

A. BEARSE.
GUY WIRE FASTENER.

APPLICATION FILED AUG. 24, 1906.



Witnesses.

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UNITED STATES PATENT OFFICE.

AARON BEARSE, OF SYRACUSE, NEW YORK, ASSIGNOR OF ONE-HALF TO
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GUY-WIRE FASTENER.

No. 849,100.

Specification of Letters Patent.

Patented April 2, 1907.

Application filed August 24, 1906. Serial No. 331,886.

To all whom it may concern:

Be it known that I, AARON BEARSE, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Guy-Wire Fasteners, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to certain improvements in guy-wire fasteners, and is specially adapted to be attached to and to form a part of the anchor-rod to receive and permanently clamp the guy-wire to such rod. In devices of this character an anchor-plate is usually embedded in the earth and a suitable anchor-rod attached thereto and allowed to protrude a greater or less distance above the surface of the earth, after which the guy-wire and anchor-rod are drawn together under high tension by suitable tackle-blocks, and the end of the guy-wire is then passed through a suitable eye in the adjacent end of the anchor-rod and clamped to the main portion of the wire by separate clamping-plates and bolts. This manner of attaching the guy-wire to the anchor-rod consumes considerable time and labor and necessitates carrying a considerable stock of separate clamping-plates aside from the anchor-rods and other appurtenances and makes it impracticable to draw the guy-wire through the eye of the rod while tightening the wire by reason of the short bend of the wire at the eye, which is liable to cause more or less abrasion, if not actual breaking of the wire at this junction.

My object, therefore, is to facilitate and to expedite the work of connecting and tightening as well as permanently clamping the guy-wire to the anchor-rod by permanently uniting one of the clamping-plates to the anchor-rod and providing it with a suitable sheave in the eye of the rod, so that the wire may easily render through the eye upon the sheave in the act of tightening such wire. In other words, I have sought to reduce the weight and cost of manufacture of the anchor-rod and wire-clamps by reducing the size of the anchor-rod and reinforcing it at the eye, where the strain is most severe, by an integral portion of one of the wire-clamping plates, and to insert in the reinforcing part of

such plate a roller or sheave around which the wire may easily render during the act of tightening the same.

Other objects and uses will be made apparent in the following description.

In the drawings, Figure 1 is an elevation of a pole, showing a wire guy and anchor-rod and my improved connection between such wire and rod. Fig. 2 is an enlarged plan of such connection and adjacent portions of the guy-wire and anchor-rod. Fig. 3 is a sectional view taken on line 3 3, Fig. 2. Fig. 4 is a perspective view of one of the clamping-plates which is adapted to receive the sheave, the latter being removed. Fig. 5 is a similar perspective view of the other clamping-plate.

As shown in Fig. 1, the upper end of the guy-wire, as 1, is attached to the upper portion of a pole 2 and has its lower end fastened by clamping-plates 3 and 4 to the eye 5 of an anchor-rod 6, which latter extends some distance into the earth and is fastened to an anchor-plate 7. The outer end of the anchor-rod 6 protrudes some distance through the surface of the earth and terminates in the eye 5, said rod consisting of a wrought-iron bolt of comparatively small gage, and the eye 5 is usually formed by returning the end of the rod on itself and welding it to the main body.

The clamping-plate 3 is preferably made of cast metal, having an enlarged head 8 of substantially the same shape as the eye 5, in which it is fitted and provided with a groove 9 in its perimeter, forming a seat for the eye 5 to prevent lateral displacement of the plate and eye relatively to each other. The head 8 is therefore integral with the plate and is somewhat narrower transversely than the main body of said plate, its inner end being circular, while its outer end tapers gradually to a point conforming to the shape of the eye, or rather the eye is made to conform to the shape of the head.

In connecting the plate 3 to the anchor-rod 6 the end of the rod before being bent into the form of an eye is passed through an aperture 10 in the plate 3 in line with the circular face of the head 8, after which said end of the rod is firmly forced into the grooved seat 9 and is welded or otherwise secured to the main body a slight distance beyond the point

of the head 8, thereby making the clamping-plate 3 practically a unitary part of the rod 6.

The head 8 is provided with a transverse slot or opening 11 centrally therein for receiving a rotary sheave or idler 12, which is mounted upon an axle 13, the latter being inserted in apertures 14, extending in opposite directions from the opening 11 and terminating in the groove 9, the eye 5, which covers the outer end of said apertures 14, serving to prevent endwise displacement of the shaft.

The main body of the plate 3 aside from the head 8 is comparatively broad and flat and is disposed in a plane slightly at one side of the longitudinal center of the head 8, its inner face being provided with parallel grooves 16, which are spaced apart a distance slightly greater than the transverse thickness of the head to form seats for the adjacent portions of the cable 1.

The portion of the plate 3 between the grooves 16 is formed with bolt-opening 17 for receiving clamping-bolts 18, the outer ends of said openings 17 being enlarged and angular in cross-section for receiving the angular heads of the bolts, as best seen in Fig. 2, and prevent turning of said bolts while their nuts are being tightened.

The clamping-plate 4, also of cast metal, is of substantially the same dimensions as the portions of the plate 3 having the groove 16 and is applied to the opposite sides of the cable 1, its inner face being formed with parallel grooves 20, forming seats for the cable or wire 1. The end of this plate adjacent to the head 8 is formed with a recess 21, alined with the opening 10 for receiving a portion of the rod or eye 5, which is wrapped around the circular portion of the head 8. The portion of the plate 4 between the grooves 20 is also formed with bolt-openings 22, which are alined with the openings 17 to receive the bolts 18, the outer face of said plate being preferably smooth to permit the nuts, as 24, to be readily turned in the act of clamping the plates 3 and 4 against opposite sides of the cable 1.

In the operation of connecting the guy-wire 1 to the anchor-rod 6 the end of said guy-wire is passed through the opening 11 and around the sheave 12 and is then drawn tightly by any suitable means capable of tensioning the wire 1 to the proper degree, after which the portions of the wire adjacent to the plates 3 and 4 are brought into the grooves 16 and 20 at opposite sides of the bolts 18 and are firmly held in this tightened position

by drawing the plates 3 and 4 together by means of the bolts 18 and nuts 24.

It is now clear that the sheave 12 enables the cable or wire 1 to be drawn through the eye without liability of abrasion or breaking any of the parts and that owing to the fact that the sheave 12 is located centrally in the head 8 it is in direct line with the main portion of the rod 6 and cable 1, the head serving not only to reinforce the eye 5 and permitting the use of comparatively light anchor-rod, but also affords a means for uniting the plate 3 to the rod, so that the anchor-rod and wire-clamp may be supplied as a single article of manufacture.

What I claim is—

1. A fastening device for guy-wires comprising an anchor-rod having an eye, a clamping-plate having a portion thereof inserted in the eye, and provided with a sheave-opening, a sheave in said opening for receiving the guy-wire, and a second clamping-plate with means for drawing said plates against opposite sides of the wire.

2. A fastening device for guy-wires comprising an anchor-rod having an eye, a clamping-plate having a head fastened in the eye of the rod, a roller on the head around which the adjacent end of the guy-wire is looped, and means for clamping opposite portions of the loop to said plate.

3. A fastening device for guy-wires comprising an anchor-rod and a clamping-plate rigidly secured thereto, a sheave embraced in the connection between the plate and anchor-rod and around which the guy-wire is looped and means for securing opposite sides of the loop to said clamping-plate.

4. In a fastening device for guy-wires, an anchor-rod having an eye, a clamping-plate having a head fitted within the eye and formed with a groove receiving the inner sides of said eye, said head being provided with a transverse opening centrally within the eye, a sheave in said opening around which the guy-wire is looped, said plate having lengthwise grooves in which opposite sides of the loop are seated, and an additional plate engaging the opposite faces of the loop and clamped to the first-named plate.

In witness whereof I have hereunto set my hand this 20th day of August, 1906.

AARON BEARSE.

Witnesses:

H. E. CHASE,
HOWARD P. DENISON.