

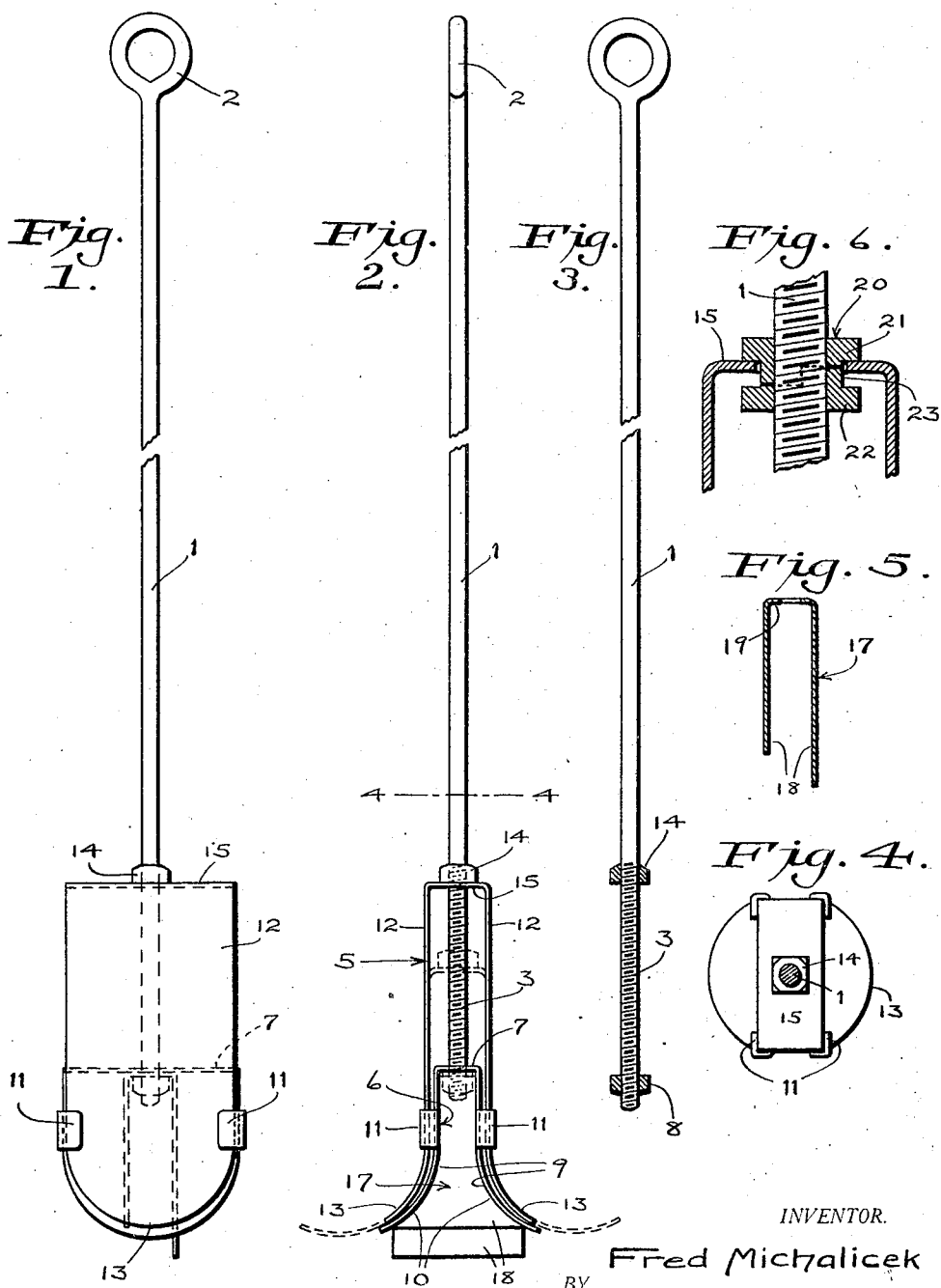
May 17, 1927.

1,629,353

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ANCHORING DEVICE

Filed July 13, 1926



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Patented May 17, 1927.

1,629,353

UNITED STATES PATENT OFFICE.

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ANCHORING DEVICE.

Application filed July 13, 1926. Serial No. 122,165.

This invention relates to guy rope anchors, and has for its primary object the provision, in a manner as hereinafter set forth, of an anchor which, after being placed in a hole, can be manipulated to cause penetrating members to force themselves into the solid earth wall of the hole.

Another object of the invention is the provision, in a manner as hereinafter set forth, of a guy rope anchor having means for forcing earth penetrating members outwardly to fix the device securely in the earth, and further having means whereby the penetrating members can be withdrawn for the release and removal of the anchor from the earth.

A still further and final object of the invention is the provision, in a manner as hereinafter set forth, of a guy rope anchor which is of simple but strong and durable construction, without hinged or jointed parts to get out of order, simple and easy to operate, and comparatively inexpensive to manufacture.

The invention will be best understood from a consideration of the following detailed description taken in connection with the accompanying drawing forming a part of this specification, with the understanding that the invention is not confined to any strict conformity with the showing of the drawing but may be changed and modified so long as such changes and modifications mark no material departure from the salient features of the invention as expressed in the appended claims.

In the drawing:—

Figure 1 shows the device embodying this invention, in front elevation.

Figure 2 shows the anchor device embodying this invention, in side elevation.

Figure 3 is a detailed view of the guy rod to the lower end of which the anchor device is attached.

Figure 4 is a transverse section taken upon the line 4—4 of Figure 2.

Figure 5 shows in detail, and longitudinal section, a brace member forming a part of the anchor device and,

Figure 6 shows a modification of the manner of securing the guy rods to the device.

Referring now to the drawing in detail wherein like numerals of reference indicate corresponding parts throughout the several views, the numeral 1 indicates a guy rod, having an eye formed at one end as indi-

cated by the numeral 2, into which a guy rope, not shown, may be attached. The other end of the rod 1 is provided for a considerable distance of its length with screw threads, as indicated at 3.

The threaded portion of the guy rod 1 extends through the yokes of a pair of substantially U-shaped members which are indicated generally by the numerals 5 and 6.

The member 6 may be termed a spreader member, and this member as is shown, is relatively broad and the lower threaded end of the rod 1 extends through the yoke portion 7 of this member, a nut 8 being threaded upon the lower end of the rod 1 beneath the yoke 7. The space between the legs 9 of the U-shaped or spreader member, is sufficient to take the nut 8 and hold the same against turning the rod 1. The free ends of the legs 9 of the spreader member 6 are rounded as shown in Figure 1 and these rounded free ends, curve outwardly in opposite directions as indicated at 10 in Figure 2. Extending outwardly from each edge of each of the leg members 9 of the spreader member, is an ear 11 which turns back over the outer face of each leg and is spaced therefrom.

Straddling the U-shaped spreader member 6, is the U-shaped member 5 which may be termed the anchor member. As is clearly shown in Figure 2, the legs 12 of the anchor member are of materially greater length than the legs of the spreader member, and these legs 12, overlying the outer faces of the legs 9 of the spreader member, pass beneath the ears 11 and are slidably held thereby against the outer faces of the legs 9. The free ends of the legs 12 of the anchor member, are also rounded as indicated at 13, and are curved outwardly in opposite directions as shown, conforming somewhat to the curvature of the free portions 10 of the spreader member legs 9. A nut 14, threaded upon the rod 1 at the upper end of the threaded portion thereof, bears upon the yoke 15 of the anchor member as shown, and, in order to prevent this nut 14 from turning upon the top of the yoke with the guy rod 1, it is forced up off of the threaded portion and jammed upon the unthreaded part. It will be readily seen that with the members 5 and 6 in the positions described, that upon turning the guy rod 1, the nut 8 being movable will move toward the nut 14 which is fixed thus causing the yoke por-

tions 7 and 15 to be drawn toward one another and forcing the free end of the legs 12 outwardly over the curved ends 10 of the legs 9, in the manner indicated by the dotted lines in Figure 2.

In order to prevent the curved portions 10 of the legs 9 of the spreader member being bent inwardly when the legs 12 of the anchor member are forced thereover, there is placed between the legs 9 of the anchor member a brace member indicated as a whole by the numeral 17. This brace member as is shown in Figure 5 is also substantially U-shaped and the legs 18 thereof are connected by the yoke portion 19 which is provided with an aperture for the extension of the lower end of the guy rod 1. The nut 8 of the guy rod bears against the underside of the yoke 19 and secures it against the underside of the yoke 7 of the spreader member. The brace member 17 has the edges of the legs 18 formed to conform to the curvature of the legs 9 of the spreader member and this brace member lies transversely of the spreader member so that the legs 9 of the spreader member bear against the edges of the legs 18 of the brace, as shown in Figure 2 and indicated in dotted lines in Figure 1. One leg of the brace member 17 is of greater length than the other as shown in Figures 1, 2 and 5, the shorter leg being of sufficient length to extend to the lowermost point of the spreader member legs 9 whereas the longer leg 18 of the brace member extends a substantial distance beyond the lowermost point of the spreader member legs and the extended end of this leg 18 is designed to bite into the earth and prevent the anchor member from turning when the guy rod 1 is turned to operate the device in the manner described.

In the construction described the withdrawal of the anchor cannot be accomplished for, as is readily seen if the operation were reversed the rod 1 would withdraw bringing the nut 14 with it but leaving the anchor member 5 embedded in the earth. To overcome this difficulty there is provided a double nut structure indicated generally by the numeral 20, which structure comprises an upper and lower nut 21 and 22 connected by the neck portion 23. As shown, this neck portion is divided into two sections, one section being carried by one of the nuts and the other being carried by the other nut, the confronting edges of the two sections

being cut square so that when the sections are placed together the entire circular neck portion is set up. This enables the nuts to be placed one above and the other below the yoke portion 15 of the anchor member 5. With this double nut structure 20 fixed to the bar 1 it will be readily seen that by turning the bar in a clockwise direction, the members 5 and 6 will be drawn together and upon turning the bar in a counterclockwise direction the members 5 and 6 will be forced apart for the purpose of removing the anchor legs 12 from the earth.

From the foregoing description it will be readily seen that the device embodying this invention is simple and easy to operate, and may be forced into or removed from the earth as desired, with little trouble.

From the formation of the ends of the legs 9 and 12, of the former and anchor members 5 and 6, it will be readily seen that the device may be conveniently placed in a circular hole and after the anchor legs have been forced outwardly into the earth wall of the hole, in the manner described, the hole may then be filled and a permanent immovable guy anchor set up.

Having thus described my invention what I claim is:—

1. An anchoring device comprising a guy rod having a threaded portion and an eye remote from the latter, a pair of inverted substantially U-shaped members of different lengths and inter-connected with each other, the ends of the members being outwardly curved, a base stationarily holding the smaller member to provide a guide for the other member, and means adjustably connecting the longer member to the guy rod.

2. An anchoring device, comprising a guy rod having a threaded portion and an eye remote from the latter, a pair of inverted substantially U-shaped members of different lengths and inter-connected with each other, the ends of the members being outwardly curved, a base stationarily holding the smaller member to provide a guide for the other member, means adjustably connecting the longer member to the guy rod, and means securing the guy rod in the base to permit rotation of said rod.

In testimony whereof, I affix my signature hereto.

FRED MICHALICEK.