

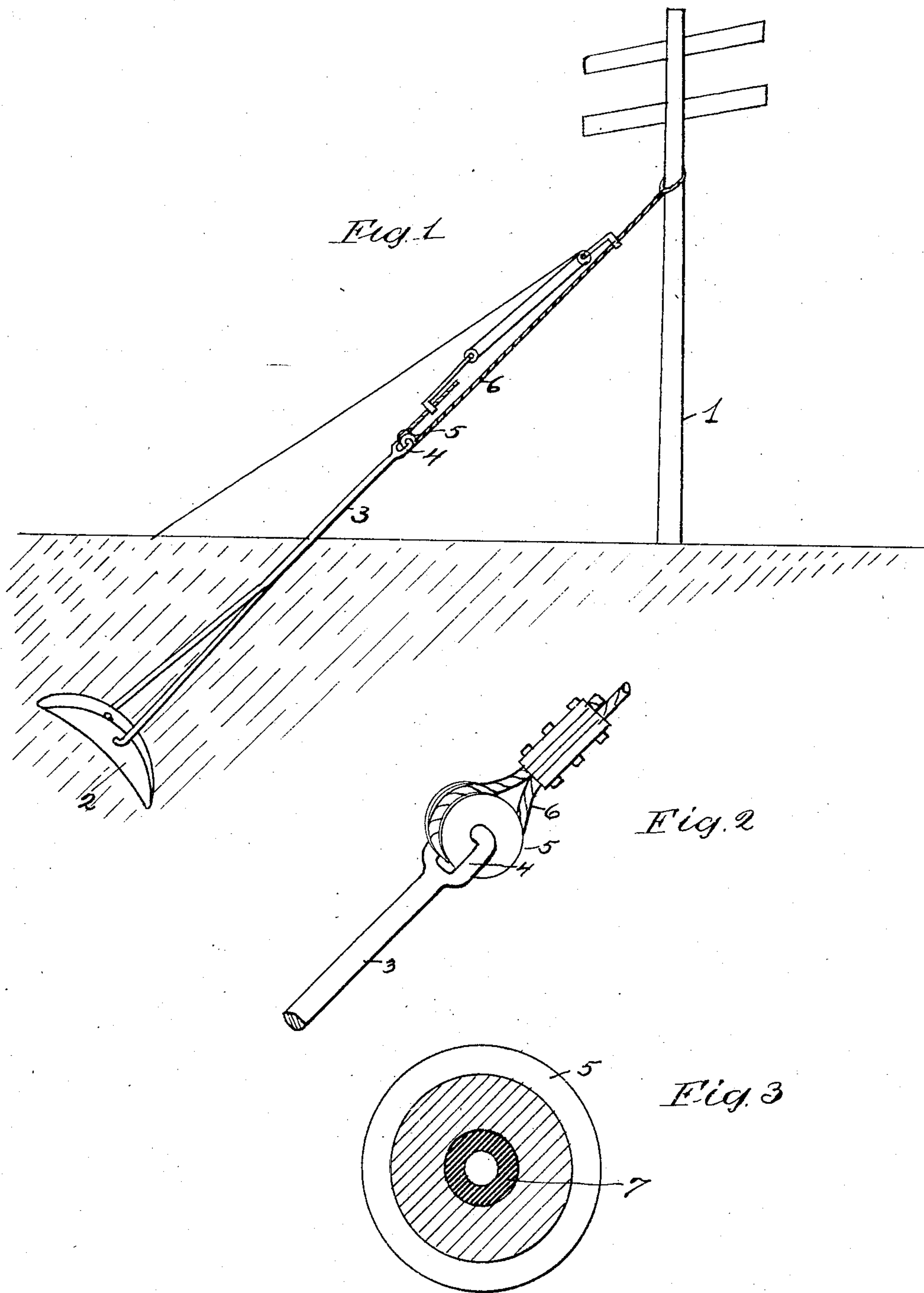
No. 774,687.

PATENTED NOV. 8, 1904.

G. H. MILLER.
EARTH ANCHOR.

APPLICATION FILED JUNE 7, 1904.

NO MODEL.



Witnesses
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UNITED STATES PATENT OFFICE.

GEORGE H. MILLER, OF NORWALK, OHIO.

EARTH-ANCHOR.

SPECIFICATION forming part of Letters Patent No. 774,687, dated November 8, 1904.

Application filed June 7, 1904. Serial No. 211,484. (No model.)

To all whom it may concern:

Be it known that I, GEORGE H. MILLER, a citizen of the United States, and a resident of Norwalk, county of Huron, State of Ohio, have invented certain new and useful Improvements in Earth-Anchors, of which I hereby declare the following to be a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

The objects of the invention are to provide means for lessening the friction upon the eye of an earth-anchor such as described in a former patent granted to me on July 25, 1903, employed in staying posts for supporting trolley-wires and in which a draw-bar provided with an eye is pivoted to a trough-shaped earth-engaging portion and in the use of which considerable friction is required in the tightening upon the straining-rope to cause the trough-shaped portion to cut into the earth and assume a position therein at right angles to the line of the draw-bar.

A further object is to provide an insulation between the draw-bar and rope which when it is made of wire may become the conductor of the current to the earth in case the conductor-wire above should fall upon it, thus short-circuiting the current. Sometimes also, especially with metal posts, a short circuit might be formed through the straining-wire and draw-bar to the ground. To obviate this friction and to enable power to be applied to the eye without damage to the rope, a pulley is pivoted therein, which has the double function of removing friction, and therefore detrimental wear, upon the rope and being formed of non-conducting material or protected thereby from contact with the eye serves to insulate the draw-bar from the straining-rope, and thus protect the conductor-wire above.

My invention further consists in the combination and arrangement of parts and construction of details, as hereinafter described, shown in the accompanying drawings, and specifically pointed out in the claims.

In the accompanying drawings, Figure 1 is a vertical elevation of the complete device, showing the anchor, draw-bar, and straining-rope in position and the anchor embedded in

the earth. Fig. 2 is an enlarged view of end of draw-bar and pulley. Fig. 3 is a sectional view of a modified form of pulley, showing an inner sleeve of non-conducting material within a metal rim.

In the views, 1 is the post which supports the wires which conduct an electric current. 2 is the anchor. 3 is the draw-bar. 4 is the eye upon the outer end thereof. 5 is a pulley pivoted therein, and 6 is the straining-rope.

The anchor as described in the previous patent referred to is first folded so as to be in line with the draw-bar and then is introduced within the hole bored into the earth. The straining-rope is then drawn over the pulley, and as the power increases the upper end of the trough-shaped earth-engaging portion of the anchor will pierce the earth until its entire body lies across the hole at right angles to the draw-bar. This strain on the rope is excessive and would soon wear it out if it were allowed to draw over the bare eye; but with the pulley the friction is reduced to a minimum and the rope is not injured.

The pulley may be made of wood, glass, or other non-conductor of electricity, and so, also, serve to prevent the passage of the current therethrough in case the insulators should break or the post or the wire fall across the wire rope. The insulating-pulley can be made in any suitable manner for this purpose and can be composed of metal lined with any suitable insulating material, as 7 in Fig. 3.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In combination with a folding anchor, provided with a draw-bar and adapted to automatically turn in the earth at right angles to the said draw-bar on the application of straining power thereto, a straining-rope, and a pulley pivoted upon the outer extremity of the draw-bar over which said rope passes, substantially as described.

2. In combination with a folding anchor provided with a draw-bar having an eye at its outer extremity, of means for turning said anchor to enter the earth and assume a position at right angles to the draw-bar, consisting of a pulley pivoted in said eye and a strain-

ing-rope passing over said pulley, substantially as set forth.

3. The combination with a trough-shaped earth-anchor, and draw-bar pivoted thereto,
5 of an eye in the outer extremity of the earth-anchor and a pulley pivoted therein, substantially as described.

4. The combination with an earth-anchor, and draw-bar therefor, of an eye in said draw-
10 bar, a straining wire rope, and an insulating device between the rope and draw-bar over which the rope passes, the said insulating device comprising a pulley composed of non-conducting material, substantially as described.

5. The combination with the draw-bar of an 15 earth-anchor, of a pulley pivoted thereon and provided with an insulating portion, substantially as and for the purpose set forth.

6. The combination with an earth-anchor and draw-bar connected therewith, of an eye 20 upon the draw-bar, and a pulley pivoted in said eye, substantially as described.

In testimony whereof I hereunto set my hand this 19th day of April, 1904.

GEORGE H. MILLER.

Witnesses:

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