No. 848,634. PATENTED APR. 2, 1907.

B. W. P. COGHLIN.

GROUND ANCHOR.

APPLICATION FILED NOV. 19, 1906.

Fig. 1.

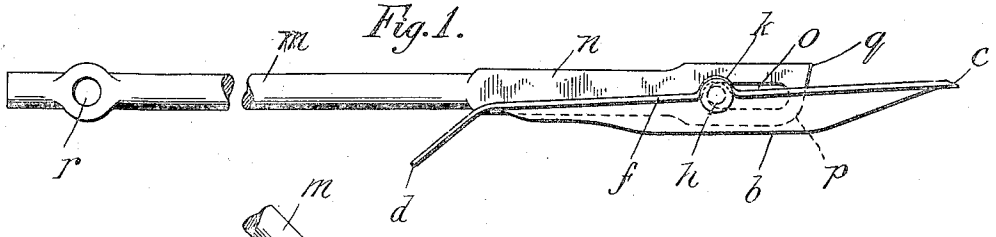


Fig. 2.

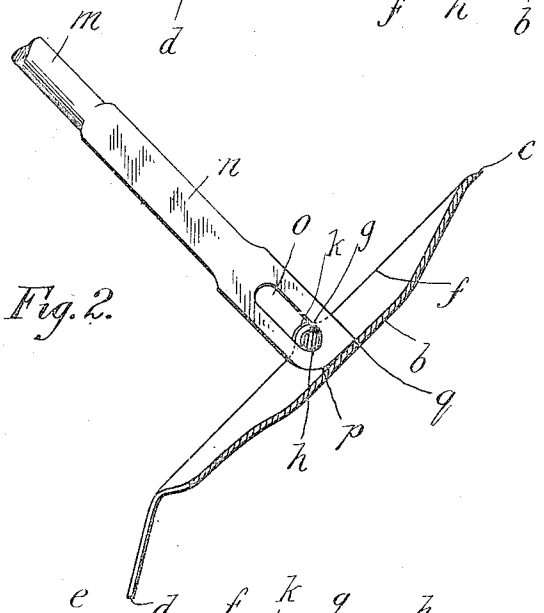
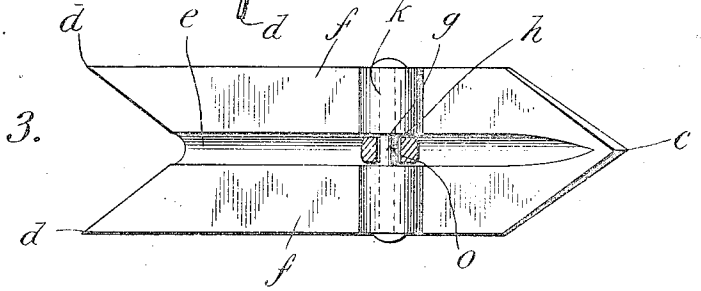


Fig. 3.



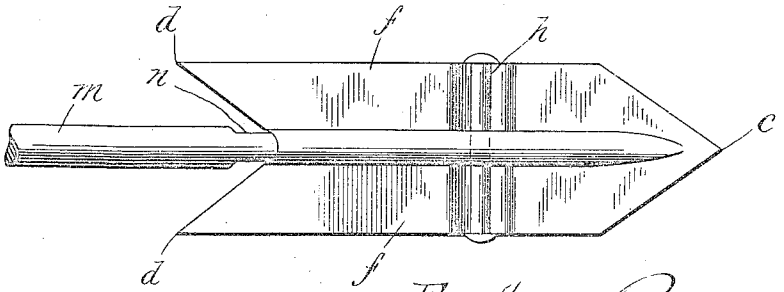


Fig. 4.

Witnesses

J. Ed. Page.

Fred. J. Dieterich

Bernard William Colin Coghlin

Inventor

By Attorney

Robt. N. Brown

UNITED STATES PATENT OFFICE.

BERNARD WILLIAM PALIN COGHLIN, OF MONTREAL, QUEBEC, CANADA.

GROUND-ANCHOR.

No. 848,634. Specification of Letters Patent. Patented April 2, 1907.

Application filed November 19, 1906. Serial No. 344,070.

To all whom it may concern:

Be it known that I, BERNARD WILLIAM PALIN COGHLIN, of the city of Montreal, Province of Quebec, Canada, have invented certain new and useful Improvements in Ground-Anchors; and I do hereby declare that the following is a full, clear, and exact description of the same.

The invention may be said to consist of the combination and construction of parts hereinafter described, and illustrated in the accompanying drawings, in which similar reference characters indicate the same parts, and wherein—

Figure 1 is a side elevation of a ground-anchor constructed according to my invention and with its parts arranged to be driven into the ground. Fig. 2 is a longitudinal sectional view of the plate, illustrating the parts in anchoring position. Fig. 3 is a plan view of the device as illustrated in Fig. 2, and Fig. 4 is a plan view of the under side of the anchor-plate.

The anchor-plate *b* is preferably formed with a central triangular point *c* at one end and a pair of triangular inclined points *d* at the sides of its opposite end, thus presenting a substantially dart formation. A groove *e* extends centrally and longitudinally of that side of the plate uppermost when embedded in the ground, and a rib *f* is similarly disposed at the opposite side of the plate, such plate being preferably of sheet metal and the groove and rib formed in one operation.

A pair of perforations *g* through the rib, with their centers intersecting the plate, receive a pin *h*, and the portions of the flanges (constituted by the plate) at opposite sides of the rib and contiguous to the perforations are raised, as at *k*, to enable these perforations to be located in the plane of the point of the plate.

A bar *m* is provided by which the anchor-plate is driven into the ground and which also serves as a portion of the stay connecting the plate to the thing to be anchored or braced. This bar has one end portion preferably flattened, as at *n*, to fit into the groove and slotted, as at *o*, to receive the pin, while the extremity of this end portion has one side rounded, as at *p*, concentrically with the adjacent end of the slot and its other side squared to form a shoulder *q*, while the opposite end of the bar has an eye *r* or other means to enable a stay-wire or the like to be connected thereto.

When putting my improved ground-anchor in use, the plate is turned to lie against the bar, thus bringing the point *c* into alinement with the axis of the bar, and the latter is pushed toward the point of the dart, (such movement being accommodated by the slot *o*,) in which position the plate is locked by the portion of the bar projecting beyond the connecting-pin. The entire device is then driven into the ground by means of a sledge, after which the bar is drawn upon until checked by the anchor-plate. In this latter action the bar first slips along the groove in the plate until the lower end of the slot reaches the pin, when the plate begins to move with it and the inclined points turn the dart gradually to a position at right angles to the bar, the rounded side *p* permitting of such movement and the square shoulder *q* checking the same when the plate assumes its proper anchoring position. (See Fig. 2.)

It will be noted that the raised portions *k* protrude very little and, being curved, offer practically no resistance to the driving of the device or the movement of the plate as it assumes its anchoring position, while the forward end of the rib being beveled offers no resistance either to the driving of the device.

What I claim is as follows:

1. A ground-anchor comprising an anchoring member and a bar connected thereto, such bar being adapted to serve the dual function of a stay and means whereby the anchoring member is driven, such anchoring member extending beneath the lower end of the said bar when in anchoring position.

2. A ground-anchor comprising an anchor-plate and a bar connected thereto, such bar being adapted to serve the dual function of a stay and means whereby the anchor-plate is driven, such anchor-plate extending beneath the lower end of the said bar when in anchoring position.

3. A ground-anchor comprising a metallic length and an anchor-plate connected thereto by a sliding pivotal connection and means for preventing movement of the plate in one direction past a predetermined angular position.

4. A ground-anchor comprising an anchor-plate and a bar connected thereto with a sliding pivotal connection such bar being adapted to serve the dual function of a stay and means whereby the anchor-plate is driven.

5. A ground-anchor comprising an anchor-

plate having a longitudinal groove below one surface thereof, and a rigid bar pivoted to the plate within the groove.

6. A ground-anchor comprising an anchor-plate with a longitudinal groove in one side, a rigid bar slotted near one end, and a pin pivoting the bar to the plate with its slotted end within the groove.

7. A ground-anchor comprising an anchor-plate with a longitudinal groove in one side and a longitudinal rib upon the other side, a rigid bar slotted near one end, and a pin pivoting the bar to the plate with its slotted end within the groove.

8. A ground-anchor comprising an anchor-plate, a rigid bar having one end partially rounded and formed with a square shoulder, and means pivoting the bar to the plate.

9. A ground-anchor comprising an anchor-plate, a rigid bar having one end partially rounded and formed with a square shoulder, and slotted means pivoting the bar to the plate.

10. A ground-anchor comprising an anchor-plate with a longitudinal groove in one side and a longitudinal rib upon the other side, a rigid bar having one end partially rounded and formed with a square shoulder, and a pin pivoting the bar with the said end within the groove.

11. A ground-anchor comprising a plate with a longitudinal groove in one side and a longitudinal rib upon the other side, a rigid bar having one end slotted and partially rounded and formed with a square shoulder, and a pin pivoting the bar to the plate with its slotted end within the groove.

12. A ground-anchor comprising a plate *b* with points *c* and *d*, groove *e*, rib *f*, perforations *g* and raised portions *k;* a rigid bar *m* having slot *o*, rounded portion *p* and shoulder *q;* and pin *h*, substantially as described and for the purpose set forth.

13. A sheet-metal anchor-plate for the purpose set forth having a longitudinal groove in one side with transverse perforations the centers whereof lie in axial alinement and in the plane of the side in which the groove is formed.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

BERNARD WILLIAM PALIN COGHLIN.

Witnesses:

WILLIAM P. MCFEAT,

FRED. J. SEARS.