D. R. SAUNDERS, DEC'D.
J. P. NEWELL, ADMINISTRATOR.
GROUND ANCHOR.
APPLICATION FILED NOV. 4, 1915.

1,244,133. Patented Oct. 23, 1917.

Fig. 1

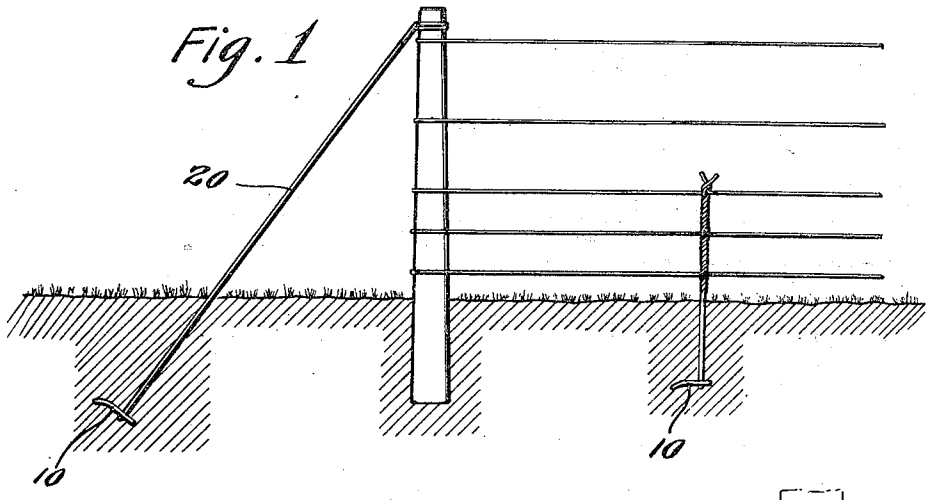


Fig. 2

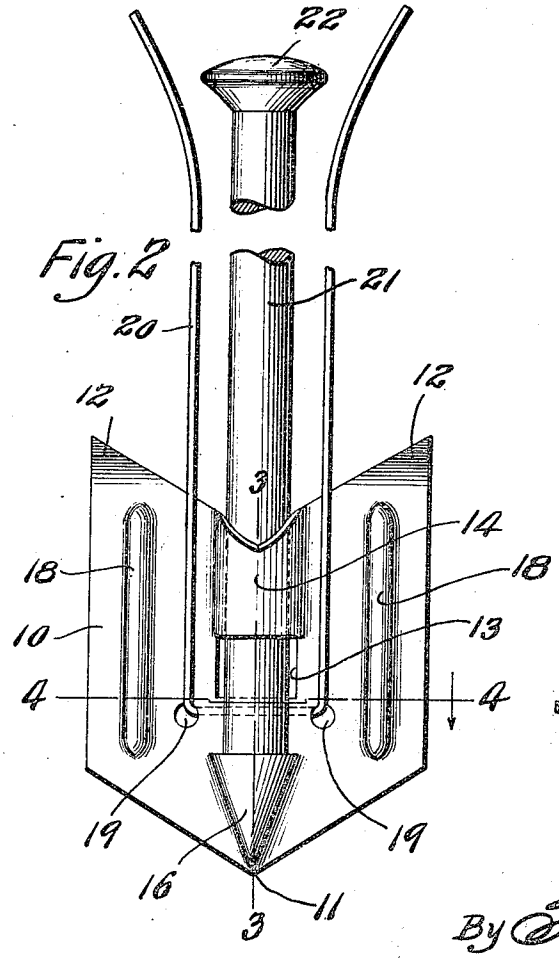


Fig. 3

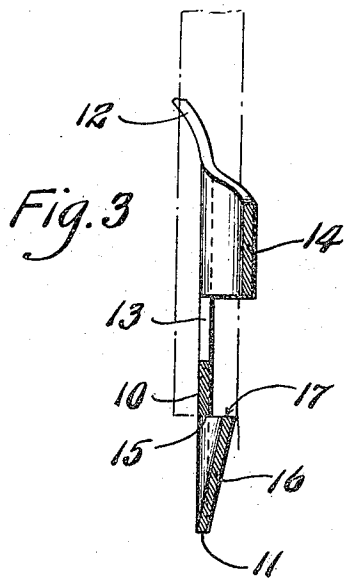
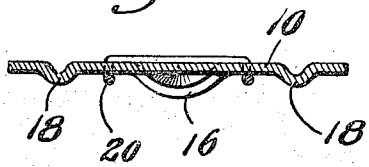


Fig. 4



Inventor
David R. Saunders
By F. W. Cornwall, Atty.

UNITED STATES PATENT OFFICE.

DAVID R. SAUNDERS, OF ST. LOUIS, MISSOURI; JAMES P. NEWELL ADMINISTRATOR OF SAID DAVID R. SAUNDERS, DECEASED.

GROUND-ANCHOR.

1,244,133. Specification of Letters Patent. Patented Oct. 23, 1917.

Application filed November 4, 1915. Serial No. 59,590.

To all whom it may concern:

Be it known that I, DAVID R. SAUNDERS, a citizen of the United States, residing at St. Louis, Missouri, have invented a certain new and useful Improvement in Ground-Anchors, of which the following is 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, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to a ground anchor of the type embodying a plate which is adapted to be driven into the ground, said plate being secured to a rod or wire stay, which latter extends a substantial distance above the surface of the ground and being adapted to engage an object, such as a post, guy wire, or the like.

The principal objects of my invention are, to provide a ground anchor which can be easily and cheaply manufactured; to provide a construction which will reduce to a minimum the earth resistance while the plate is being driven into position for use; to provide a plate to which a stay, such as a guy wire, can be easily and quickly applied, and further, to provide an anchoring plate with a shoulder near its lower end, which shoulder receives the force of the blows delivered to the driving rod or member which carries the plate to its position in the ground.

With the foregoing and other objects in view, my invention consists in certain novel features of construction and arrangement of parts, hereinafter more fully described, claimed and illustrated in the accompanying drawings, in which—

Figure 1 is an elevational view of a portion of a fence and showing two applications of my improved anchor, one as a brace for the fence post and the other as a tie and anchor for a number of the fence wires.

Fig. 2 is an elevational view of my improved anchor and showing the driving rod in position thereupon.

Fig. 3 is a vertical section taken approximately on the line 3—3 of Fig. 2 with the driving bar removed.

Fig. 4 is a horizontal section taken approximately on the line 4—4 of Fig. 2.

The anchoring plate 10 contemplated by my invention is preferably constructed of comparatively thin sheet metal which can be readily cut and pressed by means of suitable dies and the lower end of this plate is made substantially V-shape in order to provide a centrally disposed point 11.

The upper end of the plate is provided with a substantially V-shaped notch, thereby forming at the upper outer corners of the plate, substantially triangular ears 12, which latter are bent or curved rearwardly with respect to the plane occupied by the body of the plate.

Formed in the center of the plate 10 is a substantially rectangular opening 13 and that portion of the metal in the plate between this opening and the center of the V-shaped upper edge of said plate is bent or pressed forwardly as designated by 14 in order to form a seat or bearing for the driving bar which is utilized in positioning the anchor in the ground.

A short distance below the opening 13, the plate is provided with a horizontally disposed slit 15 and the material in the plate immediately below this slit is pressed forwardly to form a substantially triangular reinforcement 16, the point of which terminates at the point 11. This bent portion 16 serves to materially reinforce and strengthen the lower end of the plate in addition to serving as an entering point when the device is driven into the ground.

The upper edge 17 of the metal in this bent portion 16 serves as a shoulder for a portion of the lower end of the anchor driving bar.

Formed on the plate 10 adjacent to the side edges and parallel therewith are reinforcing ribs 18 which serve to materially stiffen the plate and permit it to be made from comparatively thin or light weight material, and consequently reducing the cost of production.

Formed through the plate 10 adjacent to the upper corners of the triangular bent portion 16 are apertures 19 through which is threaded a wire or cable such as 20 and which latter serves as a stay for a post or the like, or as a connection for a guy wire.

The member utilized for driving the plate into the ground comprises a rod 21, the lower end of which is provided with a centrally arranged slot and the upper end being provided with a head 22.

To place my improved anchor in the ground, a wire or cable is threaded through the apertures 19 with that portion of the

wire which is between said apertures on the rear side of the plate or on the side with the rearwardly bent ears 12. The lower end of the driving bar 21 is now applied to the seat 14 and said bar is moved downward until a portion of the lower end of said bar bears against shoulder 17.

The point of the plate is now placed on the ground and under the impact of blows of a suitable driving tool on the upper end of the driving bar, the plate can be very readily driven into the ground.

When said plate has reached the desired depth in the ground, the driving bar 21 is pulled out of the ground and the upper portions of the wires 20 are now engaged and pulled upwardly, which action tends to shift the position of the plate in the ground, such action being brought about by the engagement of the rearwardly bent ears with the ground and the pulling strains which are delivered to said plate at a point a substantial distance below its vertical center. As a result, the plate is turned into a position substantially at right angles to the plane occupied by the wires 20 and when so positioned, said plate will effectively resist pulling strains impressed on said wires.

The upper portions of the wires may be carried upward to a post or they may serve as a point of attachment for a guy wire.

A ground anchor of my improved construction is comparatively simple, can be cheaply manufactured, can be readily driven into the earth and when properly positioned, forms an effective anchor for guy wires, anchoring rods, stays, and the like.

It will be readily understood that minor changes in the size, form and construction of the various parts of my improved ground anchor can be made and substituted for those herein shown and described, without departing from the spirit of my invention, the scope of which is set forth in the appended claim.

I claim:

A ground anchor comprising a comparatively thin flat metal plate having straight parallel side edges and provided near its center with an opening adapted to receive a driving bar, the metal immediately above said opening being pressed outwardly to form a substantially semi-circular seat for the driving bar associated with said anchor, there being a horizontally disposed slot formed in the plate below said opening, the material in said plate immediately below said slot being pressed to one side to form a substantially triangular reinforcing member, the upper end of which forms a shoulder which serves as a bearing for the driving bar utilized in driving the anchor into the ground, there being vertically disposed reinforcing ribs pressed in the plate between the opening and the side edges of the plate, and there being wire receiving apertures formed through said plate between the opening and said reinforcing ribs.

In testimony whereof I hereunto affix my signature in the presence of two witnesses, this 29th day of October, 1915.

DAVID R. SAUNDERS.

Witnesses:
M. P. SMITH,
M. A. HANDEL.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."