

F. B. MILLER.

EARTH ANCHOR.

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1,035,893.

Patented Aug. 20, 1912.

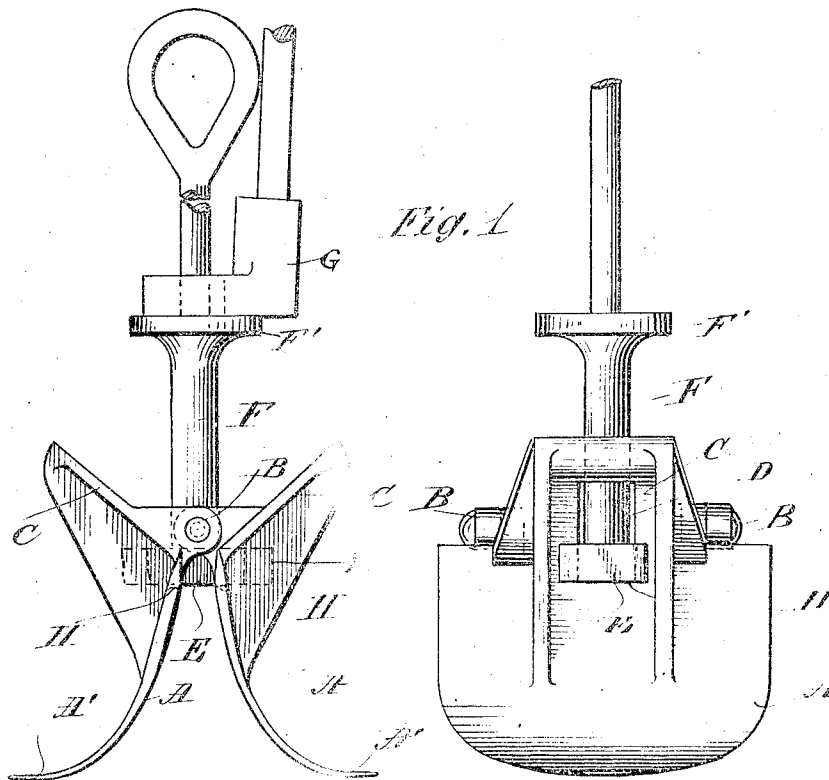


Fig. 2

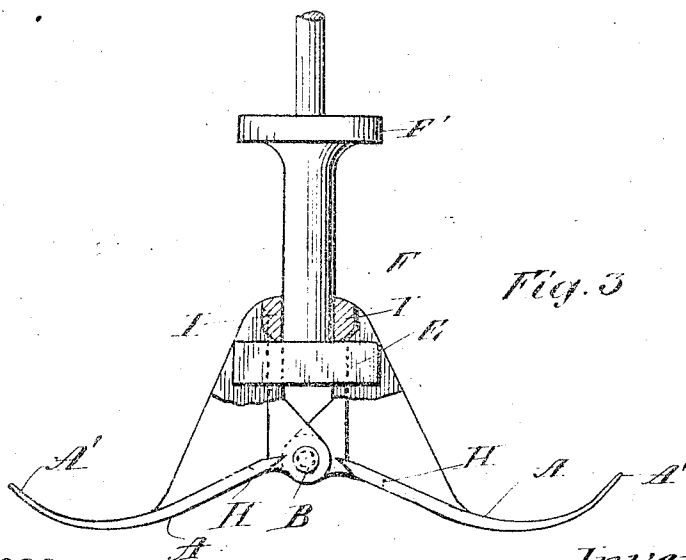


Fig. 3

Witnesses
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UNITED STATES PATENT OFFICE.

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EARTH-ANCHOR.

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To all whom it may concern:

Be it known that I, FRANK B. MILLER, a citizen of the United States, and resident of Norwalk, in the county of Huron and 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 a simple and efficient form of earth anchor to be used for retaining telegraph and trolley wire supporting posts in position and especially such posts as sustain the greatest strain such as those used to support the wires upon curves or angles. The devices are also adaptable for many other uses for which earth anchors are or may be employed.

The invention comprises blades pivoted together to adapt them to fold on each other to reduce the spread thereof so that they can be readily inserted into a post hole, and the blades are so curved at their outer ends that by means of pressure upon the blades near their pivotal point they can be spread transversely apart to enter the ground on each side of the hole. The anchor is also provided with a stem or draw bar which engages the blades at points elevated above the pivotal points so that the act of pulling upon the anchor will prevent the closing of the blades.

The invention further comprises the combination and arrangement of the various parts and construction of details herein-after more fully described, shown in the accompanying drawings and specifically pointed out in the claims.

In the accompanying drawings Figure 1 is an end elevation of the device showing the blades folded for insertion in a post hole; Fig. 2 is a side elevation thereof, and Fig. 3 is an end elevation showing the blades expanding as when in use as an anchor, and the draw bar in position for use.

In these views A, A are the blades pivoted together at B. Integrally connected with these blades are the wing plates C, C provided with guide openings D, D in which slides the T shaped head E of the draw bar F. In the position shown in Fig. 1 the blades are folded together to reduce the size as much as possible and their curved extremities A', A' turn outward; so that

when spread apart they will enter the sides of the opening. When in this position a tamping tool G is employed to press the head of the draw bar down upon the shoulders H, H to force the blades outward until they are expanded to the position shown in Fig. 3. An enlarged upper end F' for the draw bar assists the use of the tamping tool. When in this position the draw bar is raised and the T head engages the transverse portions I, I of the wings and when put under tension holds the wings together and prevents the blades from folding again. In this position a rigid anchor is provided, and no amount of strain can open the blades.

This device is simple and easy of application and incapable of getting out of order. The action of the blades alone when expanding will be sufficient to penetrate the soil if soft but when hard the soil at the bottom of the hole can be excavated to permit the blades to expand and the opening can then be filled with thoroughly tamped soil. The wings are set at an angle to said blades so that when the blades are closed the wings diverge and when the blades open the wings come together and are retained by the pull upon the draw bar.

Having described the invention what I claim as new and desire to secure by Letters Patent is:

1. In an earth anchor, in combination, a pair of blades pivoted together and having outwardly curved extremities, integral wings extending at an angle to said blades and provided with guide openings and a draw bar provided with a head traveling in said openings, and adapted to engage the outer edges of said wings.

2. In an earth anchor, in combination, a pair of blades pivoted together and having outwardly turned extremities, said blades provided with wing members angularly disposed on each side of the pivotal points, said wing members provided with slotted openings and a T headed draw bar adapted to engage the upper edges of said blades to separate the same, and also adapted to engage the upper ends of said slots when strain is put on the draw bar.

3. In an earth anchor, in combination, blades pivoted together and having outwardly curved extremities, members secured to said blades and extending at equal angles therefrom, and a draw bar slidably engage-

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ing said blades when forced downward to open the same, and engaging said members when raised to retain said blades in the open position.

5 4. In an earth anchor, in combination, blades pivoted together and having outwardly curved extremities, members operatively connected with said blades adjacent to the pivotal points thereof, and a draw
10 bar having an extended head, adapted to en-

gage said blades when forced downwardly, and to engage said members to draw upon the same when the draw bar is lifted.

In testimony whereof, I hereunto set my hand this 20th day of April 1912.

FRANK B. MILLER.

In presence of—

ED. BOUGHTON,
JNO. B. WICKHAM.