

July 28, 1959

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2,896,729

BOUNDARY MARKER EXPOSURE TOOL

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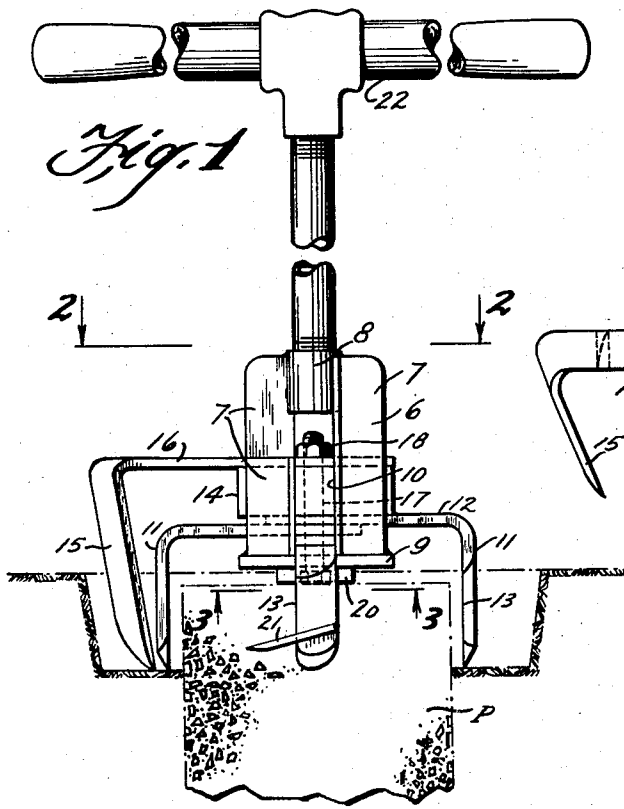


Fig. 1

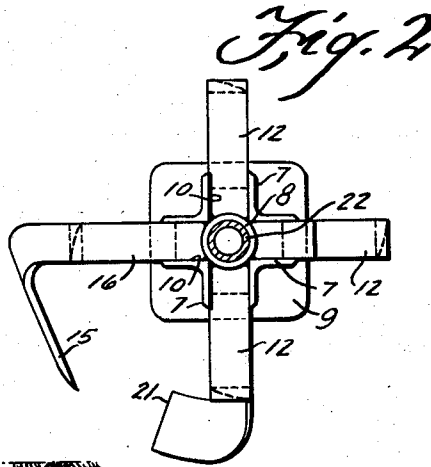


Fig. 2

Fig. 3

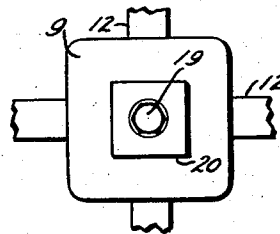


Fig. 4

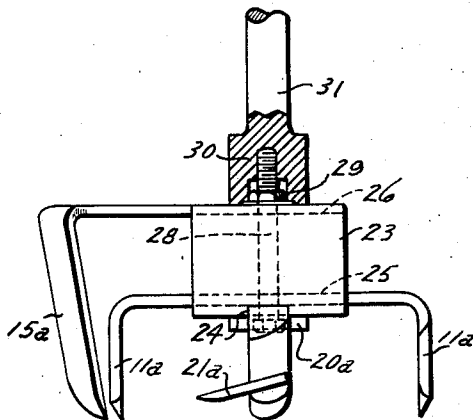
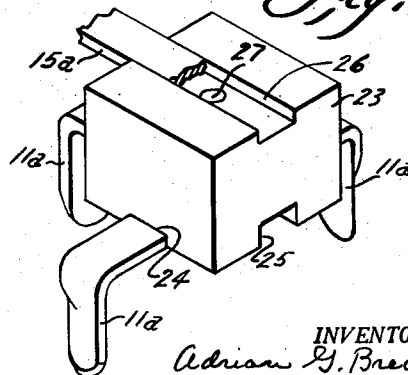


Fig. 5



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BOUNDARY MARKER EXPOSURE TOOL

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2 Claims. (Cl. 172—19)

The invention relates to a boundary marker exposure tool.

Boundary markers for determining lot lines, and particularly those used in cemeteries, are stone or concrete posts sunk into the ground with their heads flush with the ground level. In a few years these markers become obliterated by sod which grows over the tops of the posts. The object of this invention is to provide a tool which will quickly remove the sod from the top of a marker post and also clear sod away from the sides of the top portions of the marker so that it will be clearly visible.

The invention further consists in the several features hereinafter set forth and more particularly defined by claims at the conclusion hereof.

In the drawings:

Fig. 1 is a side elevation view of a tool embodying the invention, parts being broken away;

Fig. 2 is a vertical sectional view taken on the line 2—2 of Fig. 1;

Fig. 3 is a bottom view of the head of the tool;

Fig. 4 is a side elevation view showing certain modifications, parts being broken away and parts being shown in section;

Fig. 5 is a perspective view of parts shown in Fig. 4.

Referring to Figs. 1 to 3, the numeral 6 designates a head formed as a weldment of fabricated metal channels 7, a threaded metal sleeve 8, and a flat metal bottom plate 9. The channels 7 are spaced apart to provide diametrically disposed slots or passages 10 radiating from the center of the head.

A series of earth cutting blades 11 having angled shanks 12 have their shanks extending through said passages 10 so as to position the vertically disposed cutting edges 13 of the blades at substantially equal distances from the center of the head on a radius that will permit these blades to work around the sides of the post P. As shown, the shanks 12 are arranged in stacked formation, and a metal spacer block 14 extending through one of the passages 10 is mounted on the top of the uppermost shank of the stack. The blades 11 are guide blades.

A sod cutter blade 15 angles downwardly and inwardly from its shank 16 which extends through one of the passages 10 and rests on the top of the spacer block 14.

The shanks of all the blades and the body of the block 14 and the bottom of the head are drilled to provide a through hole to receive the shank 17 of a bolt by which these parts are firmly clamped to the head on the tightening up of the nut 18. The head 19 of the clamping bolt is enlarged by securing a square metal plate 20 thereto which projects below the bottom of the head and acts to tear off or break up sod accumulation on the top of the marker post P.

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One of the blades 11 has a shovel or planar cutter blade 21 secured to its outer side and inclined downwardly and forwardly from its guide blade support and is of a width equal to the radial or annular distance between the line of movement of the blades 11 and the blade 15 so that the earth between these inner and outer blades will be cut through as the head of the tool is turned. The blade 21 is disposed above the lower cutting edge of the blade 11.

A handle 22 has its post end threaded to detachably engage in the threaded sleeve 8.

In using the device, after an obscured marker post has been located, the tool is brought down over the top thereof so that the guide blades 11 are disposed down along or near the sides of the marker to center the tool relative to the post, and the tool is then pressed down as far as it will go. At this time the plate 20 is then in abutting engagement with the top of the marker or sod thereon. Then as the tool is turned clockwise, the blades 11 and the blade 15 make spaced circumferential cuts about the sides of the marker while the blade 21 working between these cuts and below the ground lever loosens the soil between these cuts while at the same time the plate 20 working on any sod accumulation on the top of the marker loosens this, and this top accumulation comes out like a pancake. As the blades 11 and 15 are forced down into the soil and the device is turned, the blade 21 works itself down into the soil with an auger-like action.

Instead of a prefabricated head, a metal head block 23 as shown in Figs. 4 and 5 may be provided having diametrically disposed slots 24 and 25 at its bottom and a slot 26 at its top aligned with one of the slots 24 or 25, said block having a bolt hole 27. A sod cutter blade 15a has its shank mounted in the slot 26. Oppositely disposed guide cutter blades 11a have a common shank and one of these units is mounted in the deeper slot 25 while the other unit is mounted in the shallower slot 24, one of the blades 11a having the circumference cutter blade 21a welded thereto.

As in the first form, the shanks of the blade units and the shank of the blade 15 have holes aligned with hole 27 to receive a clamping bolt 28 having a head carrying the plate 20a and a nut 29 engaging the shank of the blade 15a to firmly clamp the parts together. The shank of the bolt 28 extends beyond the head block 23 to form a stud for detachably receiving the threaded end 30 of a handle member 31.

The blades 11a, 15a and 21a and the plate 20a are similar respectively to the blades 11, 15 and 21 and plate 20 and operate in the same way as the first described form to remove earth and sod from and around the top of a marker post to expose the same.

I desire it to be understood that this invention is not to be limited to any particular form or arrangement of parts except insofar as such limitations are included in the claims.

What I claim as my invention is:

1. In a boundary marker exposure tool, the combination of a rotatable head, a series of circumferentially spaced relatively narrow blades having their shanks secured to and radially disposed relative to the head and their blade portions depending from their shanks at substantially right angles thereto and having lengthwise extending side cutting edges, a relatively narrow radially disposed sod cutting blade secured to and depending be-

low said head and inclining inwardly to make a cone-shaped cut outside the line of action of said first named blades, and a cutter secured to the outer side of and above the lower end of one of said radially disposed blades and having a downwardly inclined free cutting edge to cut the soil between said radially disposed blades and said sod cutting blade and projecting radially from said head at least as far as the lower end portions of said sod cutting blade.

2. The tool as defined in claim 1, wherein the bottom of the head carries a plate member acting to break up sod accumulation on the top of the marker.

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UNITED STATES PATENT OFFICE
CERTIFICATE OF CORRECTION

Patent No. 2,896,729

July 28, 1959

Adrian G. Brechlin

It is hereby certified that error appears in the printed specification of the above numbered patent requiring correction and that the said Letters Patent should read as corrected below.

Column 2, line 22, for "ground lever" read -- ground level --.

Signed and sealed this 29th day of December 1959.

(SEAL)

Attest:

KARL H. AXLINE
Attesting Officer

ROBERT C. WATSON
Commissioner of Patents